

Legal Protection in Credit Guarantee Mechanisms for MSME Financing: A Study of Financial Inclusion in Indonesia

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Abstract

This study examines how legal protections within credit guarantee mechanisms support MSME financing and strengthen financial inclusion in Indonesia. It addresses the extent to which legal and institutional arrangements can reduce credit barriers, facilitate risk sharing, and expand access to formal financing for MSMEs. Using a socio-legal research approach and a case study method, the study analyses statutory and regulatory frameworks, institutional policies, relevant documents, and the implementation of credit guarantee schemes, particularly in the context of government-supported MSME financing. The findings indicate that legal protection operates not merely as a normative framework but also as an enabling mechanism that facilitates risk distribution between financial institutions and guarantee institutions. Credit guarantee mechanisms reduce perceived credit risk, increase lending confidence, and improve MSMEs' access to productive financing. The study further finds that the effectiveness of legal protection depends on institutional synergy, regulatory coherence, risk assessment, and adaptive governance. From a theoretical perspective, the findings demonstrate that credit guarantee mechanisms reflect the principles of Law and Development by using law as an instrument to facilitate economic participation and reduce structural barriers to financing. They also embody Welfare State principles by redistributing economic risks and promoting more equitable access to financial resources. The study contributes to the socio-legal literature by conceptualizing credit guarantee mechanisms as a legal-institutional bridge between legal protection, financial inclusion, and inclusive economic development in Indonesia.

Keywords: Credit Guarantee Mechanisms; Financial Inclusion; Micro, Small and Medium Enterprises; Economic Resilience.

A. INTRODUCTION

Access to formal financing remains a significant challenge for many micro, small, and medium enterprises (MSMEs) in Indonesia. Although MSMEs constitute a major component of the national economy, various financial and institutional factors still shape access to bank financing. Empirical evidence from Indonesian banks indicates that bank stability and capital capacity are important factors associated with MSME access to credit. At the same time, financial inclusion and access to capital also play an important role in improving MSME performance (Ismanto, Atmaji, & Suhari, 2024, pp. 230–241; Ratnawati, 2020, pp. 205–218; Sanistasya, Rahardjo, & Iqbal, 2019, pp. 48–59). These constraints create a financing gap that affects not only individual business continuity but also broader financial inclusion and economic resilience (Asian Development Bank, 2022; Simba et al., 2024). In this context, credit guarantee mechanisms become important because they are designed to overcome limited access of micro and small enterprises to formal financing and to facilitate the distribution of credit risk between relevant financial institutions (Putra, Budi S., Widodo, & Firmansyah, 2019, pp. 407–416; Beck, Klapper, & Mendoza, 2010, pp. 10–25). The existing literature indicates that credit guarantee policies constitute one of the instruments used by governments and other institutions to increase the access of micro and small enterprises to formal credit, although their implementation may also generate challenges relating to information asymmetry and credit risk (Putra et al., 2019, pp. 407–416; Saito & Tsuruta, 2018, pp. 2469–2485; Uesugi, Sakai, & Yamashiro, 2010, pp. 457–480). International evidence further demonstrates that credit guarantee schemes differ in their institutional structures, government involvement, risk-sharing arrangements, eligibility requirements, and risk-

management mechanisms (Beck et al., 2010, pp. 10–25; Boocock & Shariff, 2005, pp. 427–454; Zecchini & Ventura, 2009, pp. 191–206).

Legal protection is central to these mechanisms because financing MSMEs requires an adequate legal and institutional framework governing rights, obligations, regulatory certainty, and institutional responsibilities (Hetharie, Ikhwanasyah, & Rahmawati, 2025, pp. 326–345). Hetharie, Ikhwanasyah, and Rahmawati (2025, pp. 326–345) show that legal empowerment of Indonesian MSMEs encompasses not only regulatory compliance but also financing mechanisms and institutional collaboration among government, private-sector, and other stakeholders (Rongiyarti, 2018). The legal framework must therefore provide certainty and accountability while allowing financial and guarantee institutions to respond to changing economic conditions (Asian Development Bank, 2022; OECD, 2018). Previous research has largely examined MSME financing through the lens of credit access, financial intermediation, and financial inclusion, while other studies have emphasized legal empowerment and institutional support (Utari et al., 2026; Hetharie et al., 2025, pp. 326–345). The literature indicates that improving financial inclusion and access to financial services can facilitate access to credit financing and improve MSME performance (Ratnawati, 2020, pp. 205–218; Gustriani et al., 2023; Ninglasari et al., 2023). Similarly, empirical evidence from Indonesian banks demonstrates that institutional and financial conditions within the banking sector influence the availability of credit for MSMEs (Ismanto et al., 2024, pp. 230–241).

However, these research strands remain insufficiently integrated from a socio-legal perspective. Existing discussions tend to examine MSME financing either through the lens of financial access and intermediation or through the lens of legal

empowerment and institutional arrangements (Saifurrahman & Kassim, 2024, pp. 589–617; Hetharie et al., 2025, pp. 326–345). Less attention has been given to how legal norms interact with institutional practices in implementing credit guarantee mechanisms and how this interaction influences MSME access to formal financing. This methodological concern is particularly relevant in Indonesia, where legal research has historically been divided between normative-juridical and empirical approaches (Wiratraman, 2019, pp. S229–S244). Nurtjahyo (2021) emphasizes the importance of socio-legal approaches in examining the relationship between legal rules and their social and institutional consequences in Indonesia. The present study therefore addresses this gap by examining the interaction between legal protection, credit guarantee mechanisms, institutional coordination, and financial inclusion. The study focuses on the conditions under which legal protection becomes effective in practice, rather than merely establishing formal regulatory arrangements. This focus is important because the effectiveness of credit and financing arrangements depends not only on formal legal rules but also on institutional capacity, financial conditions, and implementation practices (Ismanto et al., 2024, pp. 230–241; Hetharie et al., 2025, pp. 326–345; Saifurrahman & Kassim, 2024, pp. 589–617).

The following research question guides the study: How does legal protection operate through credit guarantee mechanisms to facilitate MSME financing and strengthen financial inclusion in Indonesia? This study examines the question through two complementary theoretical perspectives. First, Law and Development Theory views law as an instrument that can facilitate economic participation, reduce institutional barriers, and support productive economic activity. In the Indonesian context, the developmental function of law has also been discussed through the

intellectual tradition of Mochtar Kusumaatmadja, which positions law as an instrument of social and national development (Savitri, Murwadi, Lita, Putranto, & Tajudin, 2026; Fauzia, 2019, pp. 197–206). The developmental function of law is particularly relevant to MSME financing because legal and institutional arrangements can influence transaction costs, predictability, risk allocation, and access to economic resources (Arping, Lóránth, & Morrison, 2010, pp. 26–35; Asian Development Bank, 2022). Second, Welfare State Theory emphasizes the role of state-supported institutional arrangements in addressing market limitations and promoting more equitable access to economic resources. Indonesian legal scholarship has specifically conceptualized Indonesia as a legal welfare state in which state intervention aims to achieve social welfare and substantive public interests (Dimiyati et al., 2021). Within these perspectives, credit guarantee mechanisms can be understood as institutional arrangements that translate legal and public policy objectives into mechanisms for facilitating access to financing and distributing economic risks (Beck et al., 2010, pp. 10–25; OECD, 2018).

To answer the research question, this study employs a socio-legal research approach with a case study method. The socio-legal approach examines how legal norms interact with, and are implemented within, the financial and institutional environment. This approach is appropriate because socio-legal research allows examination of legal rules alongside their social, institutional, and practical consequences (Nurtjahyo, 2021; Wiratraman, 2019, pp. S229–S244). Nurtjahyo (2021) explains that the socio-legal perspective provides a methodological option for examining the relationship between legal norms and changes in social practices, while Wiratraman (2019, pp. S229–S244) emphasizes the importance of interdisciplinary

approaches that move beyond the separation between normative and empirical legal research. The case study approach provides an in-depth examination of selected credit guarantee practices supporting MSME financing. The research analyses legislation and regulations, institutional policies, relevant documents, and the implementation of credit guarantee schemes. The study uses qualitative descriptive-analytical techniques to examine the relationship between legal protection, institutional practices, risk sharing, and financial inclusion (Ramada et al., 2026; Asian Development Bank, 2022).

This study contributes to the socio-legal literature by positioning credit guarantee mechanisms not merely as financial instruments but as legal-institutional mechanisms that connect legal protection with financial inclusion. It demonstrates that the effectiveness of legal protection depends on the interaction between regulatory arrangements and institutional implementation. This argument is consistent with research showing that financial inclusion can improve MSME performance through financial intermediation and access to capital (Ratnawati, 2020, pp. 205–218; Sanistasya et al., 2019, pp. 48–59), while credit guarantee policies can function as instruments for expanding access to formal credit for micro and small enterprises (Putra et al., 2019, pp. 407–416; Adhikary, Kutsuna, & Stephannie, 2021, pp. 323–348). At the same time, international research demonstrates that the effectiveness of guarantee schemes depends on institutional design, risk management, monitoring, and the allocation of responsibilities among public and private actors (Beck et al., 2010, pp. 10–25; OECD, 2018; Asian Development Bank, 2022). From this perspective, credit guarantee mechanisms provide a practical bridge between the developmental function of law and the welfare-oriented function of state intervention. The study

therefore extends the discussion of legal protection beyond formal regulatory certainty toward its institutional and socio-economic consequences for MSME financing and financial inclusion in Indonesia (Utari et al., 2026; Hetharie et al., 2025, pp. 326–345).

The article is organized as follows. The first section presents the conceptual and legal framework governing legal protection and credit guarantee mechanisms. The second section explains the socio-legal methodology and case study approach. The third section presents and analyses findings on the implementation of credit guarantee mechanisms, MSME financing, institutional coordination, and financial inclusion. The final section discusses the theoretical implications and concludes with the implications of strengthening legal and institutional arrangements for inclusive financial development in Indonesia.

B. RESULT AND DISCUSSION

1. Legal Protection and Implementation of Credit Guarantee Mechanisms for MSME Financing

Legal protection is an important foundation for implementing credit guarantee mechanisms for MSME financing in Indonesia. The mechanism is designed to address structural barriers that frequently limit MSMEs' access to formal financial institutions, particularly limited collateral, inadequate financial documentation, limited credit history, and the perception of relatively high credit risk (Beck, Klapper, & Mendoza, 2010, pp. 10–25; Saito & Tsuruta, 2018, pp. 2469–2485; Ismanto et al., 2024, pp. 230–241). Through credit guarantees, part of the potential credit risk is shared with a guarantee institution, thereby providing greater confidence to financial institutions while maintaining opportunities for MSMEs to obtain productive financing (Zecchini

& Ventura, 2009, pp. 191–206; Arping, Lóránth, & Morrison, 2010, pp. 26–35). In this context, legal protection not only provides formal legal certainty but also establishes the basis for risk allocation, institutional responsibility, and accountability among the parties involved (Maulida et al., 2026, pp. 251–292; Mulyati et al., 2025; OECD, 2018).

The implementation of this mechanism can be observed through the Kredit Usaha Rakyat (KUR) program, which represents one of the government's major instruments for expanding access to productive financing for MSMEs (Putra et al., 2019, pp. 407–416; Adhikary, Kutsuna, & Stephannie, 2021, pp. 323–348; Wardhono, Modjo, & Utami, 2019). The KUR mechanism targets productive, viable business actors who may struggle to meet conventional banking requirements, particularly regarding additional collateral. Through the guarantee component, financial institutions are protected against some potential credit risk, while MSMEs gain greater opportunities to access formal financing (Putra et al., 2019, pp. 407–416; Beck et al., 2010, pp. 10–25).

The scale of KUR implementation demonstrates the importance of the guarantee mechanism in Indonesia's financial system. In 2024, KUR distribution reached approximately IDR 280.28 trillion, involving around 4.92 million debtors (Coordinating Ministry for Economic Affairs, 2024). The realization exceeded the annual KUR target of IDR 280 trillion and represented an increase of approximately 7.8 percent compared with the previous year. These figures demonstrate that credit guarantee mechanisms are not limited to small-scale institutional arrangements but operate within a national financing program involving millions of MSME borrowers (Maulida et al., 2026, pp. 251–292; Adhikary et al., 2021, pp. 323–348). The

magnitude of the distribution also indicates the importance of a reliable legal and institutional framework to ensure that the expansion of financing remains accompanied by adequate risk management (Ismanto et al., 2024, pp. 230–241; Uesugi, Sakai, & Yamashiro, 2010, pp. 457–480; OECD, 2018).

PT Asuransi Kredit Indonesia (Askrindo)'s implementation of KUR further illustrates the role of guarantee institutions. In 2024, Askrindo reported KUR guarantee coverage of approximately IDR 124 trillion for 2,298,325 MSME debtors (Askrindo, 2024). The guaranteed financing was also associated with the absorption of approximately 3.33 million workers (Askrindo, 2024). These figures indicate that credit guarantees have implications beyond the relationship between banks and guarantee institutions (Maulida et al., 2026, pp. 251–292). By supporting the continuity of MSME financing, the guarantee mechanism can also contribute to employment and broader economic activity (Ratnawati, 2020, pp. 205–218; Asian Development Bank, 2022).

The relationship between legal protection and risk sharing is reflected in how the guarantee mechanism allocates responsibilities among the parties. Financial institutions remain responsible for assessing the feasibility of borrowers and applying prudent lending principles, while guarantee institutions assume part of the credit risk in accordance with the applicable guarantee agreement (Maulida et al., 2026, pp. 251–292; Mulyati et al., 2025; Uesugi et al., 2010, pp. 457–480). Consequently, the guarantee does not eliminate credit risk or replace the bank's responsibility to assess credit. Instead, it creates an institutional arrangement through which predetermined legal and contractual conditions distribute potential losses arising from credit default (Mulyati et al., 2025; Saito & Tsuruta, 2018, pp. 2469–2485).

The KUR framework also demonstrates that credit guarantees involve several institutional actors. Government institutions formulate and coordinate the policy framework, financial institutions distribute financing, guarantee institutions provide risk coverage, and MSMEs benefit from the financing mechanism. This interaction shows that credit guarantees are a collaborative legal-economic mechanism rather than an isolated activity of a single institution. The effectiveness of legal protection therefore depends on consistent responsibilities and coordination among the institutions involved (Maulida et al., 2026, pp. 251–292; Beck et al., 2010, pp. 10–25; Asian Development Bank, 2022).

The importance of adaptive legal protection is also evident during periods of economic disruption. During the COVID-19 pandemic, the Indonesian government introduced the National Economic Recovery (PEN) program, including government guarantees for working-capital financing to support businesses affected by the economic crisis. Under this framework, Askrindo was assigned to implement government guarantees pursuant to Government Regulation No. 23 of 2020, Minister of Finance Regulation No. 71 of 2020, and Minister of Finance Decree No. 305/KMK.08/2020. Under the relevant working-capital guarantee scheme, guarantee coverage could reach 80 percent of the outstanding principal and certain related obligations, subject to the applicable requirements (Maulida et al., 2026, pp. 251–292). This demonstrates that the legal framework for credit guarantees can function as an adaptive instrument during extraordinary economic conditions (OECD, 2018; Asian Development Bank, 2022).

These data demonstrate that legal protection in credit guarantee mechanisms operates at both normative and practical levels. At the normative level, laws and

regulations establish the authority, rights, obligations, and responsibilities of the institutions involved. At the practical level, guarantee agreements translate these legal arrangements into mechanisms for risk allocation and claims management. The 2024 KUR data, with approximately IDR 280.28 trillion in financing distributed to 4.92 million debtors, illustrates the scale at which this legal-institutional framework operates. Meanwhile, the Askrindo data, with approximately IDR 124 trillion in guaranteed KUR financing for more than 2.29 million debtors, illustrates the operational role of guarantee institutions in implementing the mechanism (Maulida et al., 2026, pp. 251–292; Adhikary et al., 2021, pp. 323–348).

Nevertheless, a legal guarantee does not automatically ensure effective legal protection. The mechanism's effectiveness depends on the consistency between regulatory arrangements and institutional implementation. The large scale of guaranteed financing also requires effective risk assessment, monitoring, claims management, and institutional accountability. Without these elements, expanding guarantees may create moral hazard, inefficient credit allocation, or excessive risk exposure. Therefore, financial inclusion and risk management must operate simultaneously within the guarantee framework (Maulida et al., 2026, pp. 251–292; Ismanto et al., 2024, pp. 230–241; Saito & Tsuruta, 2018, pp. 2469–2485; Uesugi et al., 2010, pp. 457–480).

From a socio-legal perspective, the findings show that the effectiveness of legal protection depends on the interaction between legal norms and institutional practices. The legal framework provides the foundation for the guarantee mechanism, while the institutions involved determine how those rules operate in actual financing relationships. The KUR program illustrates this interaction: legal and policy

arrangements create the basis for guarantees, financial institutions implement financing decisions, and guarantee institutions share part of the associated credit risk (Maulida et al., 2026, pp. 251–292; Nurtjahyo, 2021; Wiratraman, 2019, pp. S229–S244).

Accordingly, credit guarantee mechanisms can be understood as a practical form of legal protection that connects legal certainty, risk sharing, and access to financing. The mechanism does not eliminate credit risk but redistributes and manages such risk among relevant institutional actors. The substantial scale of KUR distribution in 2024 and the extensive guarantee coverage provided by Askrindo demonstrate that this mechanism has become an important component of Indonesia's MSME financing architecture (Maulida et al., 2026, pp. 251–292; Ratnawati, 2020, pp. 205–218; Adhikary et al., 2021, pp. 323–348).

Overall, implementing credit guarantee mechanisms shows that legal protection has both a normative and functional dimension. The normative dimension provides certainty concerning rights, obligations, and institutional responsibilities, while the functional dimension enables risk sharing and facilitates access to formal financing. The experience of KUR and the implementation of guarantees by institutions such as Askrindo demonstrate that the effectiveness of legal protection ultimately depends not only on the existence of regulations but also on institutional coordination, prudent risk management, and consistent implementation (Maulida et al., 2026, pp. 251–292; Ismanto et al., 2024, pp. 230–241; OECD, 2018).

This condition shows that the effectiveness of legal protection in credit guarantee mechanisms cannot be assessed solely from the existence of laws and regulations. It must also be examined by how consistently the institutions involved implement the

legal framework. In practice, implementing a guarantee mechanism requires coordination among government authorities, financial institutions, guarantee institutions, and MSMEs. Each institution has a different function, but their functions are interconnected in determining whether the guarantee mechanism can operate effectively (Maulida et al., 2026, pp. 251–292; Beck et al., 2010, pp. 10–25; Asian Development Bank, 2022).

The government has an important role in establishing the policy and regulatory framework for credit guarantees. Financial institutions assess MSME feasibility and distribute financing under applicable banking principles. Guarantee institutions cover part of the credit risk under the guarantee agreement, while MSMEs remain responsible for fulfilling their contractual obligations. This division of responsibilities demonstrates that the guarantee mechanism is based on shared responsibility rather than a complete transfer of credit risk (Ismanto et al., 2024, pp. 230–241; Mulyati et al., 2025; OECD, 2018).

Risk sharing matters because a credit guarantee should not eliminate financial institutions' prudential responsibilities. A guarantee does not mean every MSME application automatically receives financing. Financial institutions must continue to assess business feasibility, repayment capacity, and other relevant risks. At the same time, guarantee institutions must ensure claims are submitted and settled in accordance with the applicable legal and contractual framework. Therefore, legal protection balances facilitating access to financing with responsible risk management (Mulyati et al., 2025; Maulida et al., 2026, pp. 251–292; Saito & Tsuruta, 2018, pp. 2469–2485).

The implementation of KUR also demonstrates that financial inclusion is closely connected with institutional capacity. Increasing the amount of financing distributed

does not automatically mean that financial inclusion has been achieved effectively. Financing must reach eligible MSMEs, be used for productive purposes, and be supported by an institutional system that can manage the associated risks. Ratnawati (2020, pp. 205–218) found that financial inclusion is related to MSME performance through financial intermediation and access to capital. This finding supports the argument that credit guarantee mechanisms should be viewed as part of a broader financial inclusion framework rather than merely as instruments for transferring credit risk (Ratnawati, 2020, pp. 205–218; Gustriani et al., 2023; Sanistasya, Rahardjo, & Iqbal, 2019, pp. 48–59; Ninglasari et al., 2023).

Guarantee institutions therefore play an important role in connecting public financing policy with the banking system. The Askrindo data for 2024 illustrate the scale of this function, with approximately IDR 124 trillion in KUR financing guaranteed for more than 2.29 million MSME debtors. The data indicate that guarantee institutions operate within a large financing ecosystem involving millions of MSME borrowers. However, the figures should be understood as evidence of the scale of guarantee implementation rather than as evidence that the guarantee mechanism alone determines MSME performance or employment outcomes (Maulida et al., 2026, pp. 251–292; Adhikary et al., 2021, pp. 323–348).

The same principle applies to the reported employment figures. The link between guaranteed financing and the absorption of about 3.33 million workers shows the broader economic relevance of MSME financing. Nevertheless, employment outcomes are influenced by various factors, including business conditions, market demand, management capacity, and macroeconomic conditions. Therefore, the contribution of credit guarantees is more appropriately understood as creating

conditions that support the continuity of financing and economic activity (Maulida et al., 2026, pp. 251–292; Ratnawati, 2020, pp. 205–218).

Another important aspect is managing guarantee claims. Legal protection becomes meaningful when regulations and guarantee agreements can be implemented through clear, predictable procedures. The guarantee mechanism therefore requires clear requirements concerning eligibility, guarantee coverage, default, documentation, claim submission, verification, and settlement. If these procedures are unclear or applied inconsistently, legal uncertainty may arise even when a formal regulatory framework is already in place (Maulida et al., 2026, pp. 251–292; Rongiyarti, 2018; OECD, 2018).

In this regard, legal protection is directly linked to institutional accountability. Each institution must be responsible for the functions assigned to it. Financial institutions cannot transfer their entire lending responsibility to guarantee institutions, while guarantee institutions cannot reject legitimate claims without clear legal and contractual grounds. Similarly, MSMEs must remain responsible for how they use financing and for fulfilling their obligations. The effectiveness of legal protection therefore depends on the balance of rights and responsibilities among all actors (Maulida et al., 2026, pp. 251–292; Mulyati et al., 2025; Hetharie, Ikhwansyah, & Rahmawati, 2025, pp. 326–345).

The COVID-19 experience further demonstrates the importance of this institutional balance. During an economic crisis, the state may need to adjust financing and guarantee policies to respond to extraordinary risks. The government guarantee scheme implemented through the PEN program showed that the legal framework could adapt to support business financing during economic disruption. This flexibility

matters because legal protection must provide both certainty and the capacity to respond to changing economic circumstances (Maulida et al., 2026, pp. 251–292; OECD, 2018; Asian Development Bank, 2022).

From a socio-legal perspective, these conditions suggest a gap between legal protection as formally established and legal protection as experienced in practice. Regulations may establish institutions' authority and responsibilities, but their effectiveness depends on how they are interpreted and implemented. The KUR mechanism provides an example of this interaction because the outcome is determined not only by government regulations but also by banking practices, guarantee procedures, institutional coordination, and the capacity of MSMEs to access and utilize financing (Maulida et al., 2026, pp. 251–292; Nurtjahyo, 2021; Wiratraman, 2019, pp. S229–S244; Utari et al., 2026).

The findings therefore suggest that the legal protection of MSME financing should be understood in both normative and functional terms. The normative dimension concerns clear rules, legal certainty, rights, obligations, and institutional authority. The functional dimension concerns the ability of those rules to operate effectively in practice by facilitating financing, distributing credit risk, protecting the interests of the parties, and ensuring institutional accountability (Maulida et al., 2026, pp. 251–292; Hetharie et al., 2025, pp. 326–345; Saifurrahman & Kassim, 2024, pp. 589–617).

This distinction is important for understanding the role of credit guarantee mechanisms in Indonesia. Legal protection aims not only to provide a formal legal basis for guarantees but also to ensure the mechanism produces a predictable and fair financing environment. A guarantee mechanism can support financial inclusion only

when the legal framework, institutional arrangements, and implementation procedures operate consistently (Maulida et al., 2026, pp. 251–292; Ratnawati, 2020, pp. 205–218; Saifurrahman & Kassim, 2024, pp. 589–617).

Accordingly, the implementation of KUR and the role of guarantee institutions such as Askrindo demonstrate that credit guarantees can be understood as a legal-institutional mechanism connecting legal protection, risk sharing, and financial inclusion. The mechanism does not eliminate credit risk but provides a structured means of distributing and managing that risk among the relevant institutions. Its effectiveness ultimately depends on regulatory certainty, institutional coordination, prudent credit assessment, transparent claims management, and consistent implementation (Maulida et al., 2026, pp. 251–292; Beck et al., 2010, pp. 10–25; Uesugi et al., 2010, pp. 457–480).

In this sense, Indonesia's MSME financing experience suggests that strengthening legal protection does not necessarily require creating additional regulations alone. It also requires improving the implementation of existing rules, strengthening coordination among institutions, ensuring transparency in guarantee claims, and maintaining an appropriate balance between financial inclusion and risk management. Such an approach allows legal protection to move beyond formal certainty toward functional protection that produces meaningful access to formal financing for MSMEs (Maulida et al., 2026, pp. 251–292; Ismanto et al., 2024, pp. 230–241; Saifurrahman & Kassim, 2024, pp. 589–617; Utari et al., 2026).

2. Credit Guarantee Mechanisms and MSME Financial Inclusion

Access to formal financing remains a major challenge for Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. Although MSMEs constitute an

important part of the national economy, banks do not determine access to financing solely by credit demand. Financial institutions also assess borrowers' repayment ability, business stability, creditworthiness, and adequate supporting documentation. In practice, these requirements may create barriers for MSMEs, particularly businesses with limited collateral, incomplete financial records, short credit histories, or relatively high perceived credit risk (Ismanto, Atmaji, and Suhari, 2024; Saifurrahman and Kassim, 2024). Recent research on Indonesian banks shows that bank stability and capital are significant factors associated with MSME credit access, indicating that access to MSME financing is influenced not only by borrower characteristics but also by financial institutions' risk-bearing capacity (Ismanto, Atmaji, and Suhari, 2024).

The regulatory dimension is equally important. Saifurrahman and Kassim (2024), in a qualitative study of Islamic banks and MSMEs in Indonesia, found that regulatory restrictions and weaknesses in MSME registration and taxation can limit MSMEs' ability to access formal financing and government-supported financing programs. Their findings show that financial inclusion depends on the interaction between the regulatory environment and MSMEs' capacity to meet formal institutional requirements (Saifurrahman and Kassim, 2024).

In this context, credit guarantee mechanisms provide an institutional instrument to address part of the risk gap between MSMEs and financial institutions. A credit guarantee does not eliminate the obligation of the MSME to repay the loan and does not replace the bank's credit assessment. Instead, it shifts some credit risk to a guarantee institution. This arrangement provides additional protection to the lending institution when a guaranteed borrower defaults, while also increasing the likelihood that productive and viable MSMEs that lack sufficient additional collateral can obtain

formal financing (Adhikary, Kutsuna, and Stephannie, 2019; Mulyati, Murwadji, and Bernike, 2025). Askrindo, for example, explains that KUR guarantees are intended for productive, viable businesses that have not yet secured the additional collateral the bank requires. In contrast, the guarantee provides greater access to financing and reduces the risk faced by KUR-distributing financial institutions (Askrindo, 2024).

This mechanism is evident in the implementation of Kredit Usaha Rakyat (KUR). In 2024, KUR distribution reached Rp282.44 trillion and was provided to approximately 4.95 million debtors (Coordinating Ministry for Economic Affairs, 2024). This represents a substantial channel of formal financing for MSMEs and demonstrates the scale at which government-supported credit mechanisms are being used to expand access to productive financing (Coordinating Ministry for Economic Affairs, 2024).

The guarantee institution's role is also reflected in Askrindo's performance. In 2024, Askrindo guaranteed Rp124 trillion in KUR for 2,298,325 MSME debtors, with the guaranteed financing associated with the employment of 3,333,866 workers (Askrindo, 2024). These figures indicate that the credit guarantee mechanism operates not merely as a contractual risk-sharing arrangement but also as an institutional channel through which government-supported financing reaches many MSMEs (Maulida et al., 2026).

At the banking-system level, the scale of MSME financing also demonstrates the continuing importance of formal credit. OJK's Indonesia Banking Statistics recorded outstanding MSME credit of approximately Rp1,506.29 trillion at the end of December 2024, with MSME non-performing loans/non-performing financing of approximately Rp56.58 trillion. Based on these figures, the implied NPL/NPF ratio is

approximately 3.75%. This figure shows why risk-sharing mechanisms remain relevant: MSME financing involves measurable credit risk, and excessive risk exposure may affect financial institutions' willingness to expand lending (Adhikary, Kutsuna, and Stephannie, 2019).

The relationship between credit guarantees and financial inclusion can therefore be understood through several interconnected mechanisms. First, guarantees reduce lending institutions' effective risk exposure (Adhikary, Kutsuna, and Stephannie, 2019). Second, reduced risk exposure can increase financial institutions' willingness to finance borrowers who would otherwise struggle to meet conventional credit requirements (Mulyati, Murwadi, and Bernike, 2025). Third, access to formal financing allows MSMEs to obtain working capital and investment financing through regulated financial institutions (Ratnawati, 2020). Fourth, repeated access to formal financing may help MSMEs build a credit history and integrate more fully into the formal financial system (Ratnawati, 2020). However, these effects should not be interpreted as automatic or solely causal based on aggregate KUR and guarantee-distribution figures. The guarantee mechanism operates within a broader institutional environment involving credit assessment, regulatory compliance, business viability, monitoring, and institutional coordination (Saifurrahman and Kassim, 2024).

The available data also demonstrate the importance of distinguishing between financial inclusion in general and access to productive financing specifically. The OJK-BPS National Survey of Financial Literacy and Inclusion (SNLIK) recorded a national financial inclusion index of 75.02% in 2024 and 80.51% in 2025 (OJK and BPS, 2024; OJK and BPS, 2025). The 2025 figure represents a 5.49 percentage-point increase from 2024. Nevertheless, these indicators measure broader access to financial

products and services and should not be interpreted as a direct measure of MSME access to credit guarantees.

Accordingly, credit guarantee mechanisms should be positioned as one component of a broader financial inclusion architecture. Their principal function is to address the risk dimension of the financing relationship, particularly where MSMEs are economically viable but face limitations in collateral or other conventional credit requirements (Adhikary, Kutsuna, and Stephannie, 2019). The mechanism can therefore be conceptualized as a legal and institutional bridge between MSME financing needs and financial institutions' risk-management interests (Maulida et al., 2026). Its effectiveness, however, depends upon coherent regulation, appropriate risk assessment, institutional accountability, and continuous monitoring to prevent moral hazard and inefficient allocation of public-supported financing (Mulyati, Murwadi, and Bernike, 2025). The empirical picture is summarized in Table:

Table

Credit Guarantee Mechanisms and MSME Financial Inclusion in Indonesia

Indicator	2024 Data	Measurement / Calculation	Analytical Significance
KUR distribution	Rp282.44 trillion	Annual KUR realization	Indicates the scale of government-supported formal financing for MSMEs
KUR debtors	4.95 million debtors	Number of KUR recipients	Indicates the breadth of access to formal productive financing

New KUR debtors	2.52 million debtors	Data as of 31 October 2024	Indicates expansion of access to financing among new borrowers
KUR graduated debtors	>1.30 million debtors	Data as of 2024	Indicates movement of some borrowers toward higher financing capacity
KUR NPL	2.19%	KUR non-performing loan ratio	Indicates the quality of KUR financing and the importance of risk management
Askrindo KUR guarantee	Rp124 trillion	Total KUR guaranteed by Askrindo in 2024	Measures the scale of guarantee intervention in MSME financing
MSME debtors guaranteed by Askrindo	2,298,325 debtors	Number of MSME debtors guaranteed	Measures the reach of the guarantee mechanism
Employment associated with Askrindo guarantees	3,333,866 workers	Workers associated with guaranteed MSME financing	Provides an indicator of the broader economic reach of guaranteed financing
Outstanding MSME bank credit	Rp1,506.29 trillion	December 2024 outstanding credit	Indicates the scale of formal bank financing to MSMEs

MSME NPL/NPF	Rp56.58 trillion	December 2024	Shows the absolute credit-risk exposure in MSME financing
Implied MSME NPL/NPF ratio	≈3.75%	$\text{Rp56.58 trillion} \div \text{Rp1,506.29 trillion} \times 100$	Quantifies the credit-risk dimension of MSME lending
National financial inclusion index	75.02%	SNLIK 2024	Measures broad financial inclusion, not specifically MSME credit
National financial inclusion index	80.51%	SNLIK 2025	Shows the development of overall financial inclusion
KUR distribution as a proportion of outstanding MSME bank credit	≈18.75%	$\text{Rp282.44 trillion} \div \text{Rp1,506.29 trillion} \times 100$	Provides an indicative comparison of KUR scale with total outstanding MSME bank credit

Askrindo guarantee as proportion of total KUR distribution	≈43.91%	Rp124 trillion ÷ Rp282.44 trillion × 100	Indicates the scale of Askrindo's guarantee portfolio relative to total KUR distribution
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Sources: Coordinating Ministry for Economic Affairs (2024); Financial Services Authority, *Statistik Perbankan Indonesia* December 2024; OJK-BPS SNLIK 2024–2025; Askrindo (2024).

The table illustrates three important dimensions of the credit guarantee mechanism. First, the magnitude of KUR distribution demonstrates that credit guarantee-supported financing has become a significant channel for connecting MSMEs with formal financial institutions (Coordinating Ministry for Economic Affairs, 2024). Second, the Askrindo data demonstrate that guarantee institutions cover a substantial number of MSME debtors and a significant volume of financing (Askrindo, 2024). Third, the comparison with outstanding MSME bank credit and MSME NPL/NPF shows that financial inclusion cannot be separated from credit risk management (OJK, 2024).

Nevertheless, the data should not be interpreted to mean that the increase in KUR or guaranteed financing alone caused the improvement in financial inclusion. The aggregate figures do not isolate the independent effect of credit guarantees from other factors such as interest-rate subsidies, credit policies, borrower characteristics, banking conditions, digitalization, financial literacy, and government programs (Ratnawati,

2020; Saifurrahman and Kassim, 2024). Therefore, the available evidence suggests that credit guarantee mechanisms are an important institutional instrument for reducing financing barriers and facilitating access to formal credit, rather than guarantees alone causing financial inclusion.

From the perspective of Law and Development Theory, this mechanism demonstrates how legal institutions can be designed to overcome structural barriers in economic participation (Savitri et al., 2026). The law does not merely regulate the lender-borrower relationship; it establishes an institutional risk-sharing arrangement that enables economic actors with limited collateral capacity to participate in the formal financial system (Adhikary, Kutsuna, and Stephannie, 2019). From the perspective of Welfare State Theory, the mechanism reflects the state's redistributive function by sharing financing risks and facilitating access to economic resources for groups that may otherwise face structural disadvantages in formal credit markets (Dimiyati et al., 2021). In this sense, credit guarantee mechanisms can be understood as a legal-institutional bridge connecting legal protection, risk sharing, formal financing, and financial inclusion.

The mechanism becomes particularly relevant for MSMEs that are economically viable but do not fully satisfy conventional lending requirements. In conventional credit assessment, collateral, financial documentation, credit history, and demonstrated repayment capacity may influence financial institutions' decisions to approve financing (Adhikary, Kutsuna, and Stephannie, 2019; Ismanto, Atmaji, and Suhari, 2024). These requirements can create difficulties for MSMEs whose businesses are still developing or whose financial activities have not been fully integrated into formal accounting and financial reporting systems (Saifurrahman and

Kassim, 2024). In such circumstances, credit guarantees can serve as an institutional mechanism to reduce the financing gap by providing additional assurance to financial institutions without fully removing the borrower's repayment responsibility (Mulyati, Murwadji, and Bernike, 2025).

The importance of the guarantee mechanism lies not only in its existence but also in how it changes the relationship between risk and access to finance. Without a guarantee, financial institutions may bear a larger share of the potential loss from MSME default. With an appropriate guarantee arrangement, the guarantee institution can assume part of that risk under the applicable legal and contractual framework (Adhikary, Kutsuna, and Stephannie, 2019). This arrangement may enable financial institutions to consider financing applications from viable MSMEs that face limitations in collateral or other conventional requirements (Mulyati, Murwadji, and Bernike, 2025). The guarantee therefore operates as a risk-sharing mechanism rather than as a substitute for prudent credit assessment.

This distinction is important because financial inclusion should not be understood simply as an increase in the number or value of loans distributed. Meaningful financial inclusion also requires that financing is accessible, appropriate, sustainable, and provided through regulated financial institutions (Ratnawati, 2020). For MSMEs, access to formal financing can provide working capital, investment resources, and opportunities to strengthen business operations. However, access alone does not guarantee improved business performance. The effectiveness of financing depends on MSMEs' capacity to use funds productively, manage cash flow, comply with financing obligations, and respond to market conditions (Ratnawati, 2020).

The guarantee mechanism can also reduce a structural barrier associated with information asymmetry. Financial institutions generally possess less information about the financial condition and future performance of small businesses than the business owners themselves. Limited financial records and short credit histories may therefore increase uncertainty in the lending decision (Adhikary, Kutsuna, and Stephannie, 2019). A guarantee mechanism does not eliminate this information asymmetry, but it can provide an additional institutional layer of protection against some potential loss (Mulyati, Murwadji, and Bernike, 2025). Consequently, the mechanism may improve the conditions under which financial institutions assess and extend financing to eligible MSMEs.

Nevertheless, a guarantee does not mean that all MSMEs facing financing difficulties will automatically obtain formal credit. Financial institutions still have responsibilities regarding creditworthiness, business feasibility, repayment capacity, and compliance with applicable prudential requirements (Ismanto, Atmaji, and Suhari, 2024). Similarly, guarantee institutions must assess whether a financing facility satisfies the requirements for guarantee coverage and whether a subsequent claim is supported by the required documentation (Mulyati, Murwadji, and Bernike, 2025). This demonstrates that the guarantee mechanism operates through a sequence of institutional decisions rather than through a single legal act.

The implementation process can therefore be illustrated as an interconnected chain: MSME financing needs are assessed by the financial institution; a guarantee arrangement supports the eligible financing facility; the guarantee institution assumes an agreed portion of the credit risk; and the MSME remains responsible for fulfilling its financing obligations (Adhikary, Kutsuna, and Stephannie, 2019; Mulyati,

Murwadji, and Bernike, 2025). When default occurs, the guarantee mechanism may provide compensation to the financial institution in accordance with the applicable guarantee agreement and requirements. This institutional sequence creates a framework for balancing two objectives that may otherwise be difficult to reconcile: expanding access to financing and maintaining financial discipline.

From this perspective, assess the contribution of credit guarantees to financial inclusion in terms of both access and sustainability. On the access side, the mechanism can reduce reliance on additional collateral as the sole basis for managing credit risk (Adhikary, Kutsuna, and Stephannie, 2019). On the sustainability side, the mechanism must be accompanied by appropriate credit assessment, monitoring, claims management, and institutional accountability (Mulyati, Murwadji, and Bernike, 2025). A guarantee system that focuses only on expanding financing without sufficient risk management may increase exposure to moral hazard and inefficient credit allocation (Maulida et al., 2026). Conversely, a system that applies excessively restrictive requirements may reduce the practical accessibility of the guarantee mechanism for the very MSMEs that the policy is intended to support (Saifurrahman and Kassim, 2024).

The data presented in this study support this more cautious interpretation. The scale of KUR distribution and Askrindo's guarantee coverage show the guarantee mechanism's capacity to reach many MSME borrowers (Coordinating Ministry for Economic Affairs, 2024; Askrindo, 2024). However, aggregate figures do not show that credit guarantees alone increase financial inclusion. Other factors, including interest-rate policy, financial literacy, digital financial services, banking conditions, borrower characteristics, and government support programs, may also influence access

to formal financing (Ratnawati, 2020; Saifurrahman and Kassim, 2024). Therefore, the empirical evidence is better interpreted as demonstrating the significant institutional role of credit guarantees within a broader financial inclusion system, rather than as evidence of a direct causal relationship.

The distinction between formal access and effective access is also important from a socio-legal perspective. Formal access exists when legal and institutional arrangements make financing available to eligible MSMEs. Effective access, however, depends on whether MSMEs can actually navigate the requirements and procedures established by financial and guarantee institutions (Saifurrahman and Kassim, 2024; Utari et al., 2025). Registration status, financial documentation, understanding of financing obligations, business records, and institutional capacity may determine whether the formal availability of a guarantee translates into actual access to credit. This demonstrates why the effectiveness of legal protection cannot be assessed solely from the existence of legislation or the amount of financing distributed (Nurtjahyo, 2021; Utari et al., 2025).

In this regard, the guarantee mechanism illustrates how law and socio-economic conditions interact. Legal rules establish the rights, obligations, authority, and risk-sharing arrangements of the relevant institutions, while institutional practices determine how those arrangements operate in actual financing relationships (Wiratraman, 2019; Utari et al., 2025). The same legal framework may therefore produce different practical outcomes depending on the capacity of financial institutions, guarantee institutions, government agencies, and MSMEs to implement and access the mechanism (Utari et al., 2025). The socio-legal significance of credit

guarantees lies precisely in this interaction between formal rules and their implementation (Nurtjahyo, 2021; Wiratraman, 2019).

The mechanism also has implications for developing a more inclusive formal financial system. When MSMEs obtain financing through regulated financial institutions, they become more closely connected to formal financial practices and institutional requirements. Over time, such participation may facilitate the development of financial records, repayment histories, and relationships with financial institutions (Ratnawati, 2020). However, this potential benefit depends on the continuity and quality of the financing relationship and should not be assumed solely from the existence of a guarantee facility.

Accordingly, credit guarantees can be conceptualized as an institutional bridge between MSMEs' financing needs and financial institutions' risk-management interests. The bridge operates through risk sharing: MSMEs gain access to formal financing, financial institutions retain responsibility for prudent lending, and guarantee institutions assume an agreed portion of credit risk (Adhikary, Kutsuna, and Stephannie, 2019; Mulyati, Murwadji, and Bernike, 2025). The government provides the broader policy and regulatory framework within which these relationships operate. This configuration demonstrates that financial inclusion is not produced by a single institution but through the interaction of multiple legal and institutional actors (Saifurrahman and Kassim, 2024).

The findings also indicate that the effectiveness of this bridge depends on the quality of institutional implementation. Clear eligibility requirements, transparent guarantee coverage, predictable claims procedures, adequate monitoring, and coordination among institutions are necessary to ensure that legal protection produces

practical benefits (Mulyati, Murwadji, and Bernike, 2025). When these elements are weak, the guarantee mechanism may become a formal risk-transfer instrument without substantially reducing the barriers MSMEs face. Thus, the effectiveness of credit guarantee mechanisms should be evaluated not only by the amount of financing guaranteed but also by their ability to reduce structural barriers while maintaining responsible risk management (Maulida et al., 2026).

In this sense, the relationship between credit guarantees and financial inclusion is best understood as a process rather than a single outcome. Legal protection establishes the institutional basis; credit guarantees distribute some financing risk; financial institutions assess and provide credit; MSMEs use the financing; and continuous monitoring determines whether the mechanism remains sustainable (Mulyati, Murwadji, and Bernike, 2025). This process shows why expanding guaranteed financing must be matched with institutional capacity, regulatory coherence, and responsible financial practices (Saifurrahman and Kassim, 2024).

Overall, the findings show that credit guarantee mechanisms can contribute to MSME financial inclusion by addressing a central constraint in formal financing: distributing and managing credit risk. Their role is especially important for viable MSMEs that face limits in collateral, credit history, or financial documentation (Adhikary, Kutsuna, and Stephannie, 2019). However, the guarantee mechanism does not eliminate these structural constraints on its own. Its effectiveness depends on the interaction among legal protection, institutional capacity, financial assessment, and MSMEs' ability to participate effectively in the formal financial system (Saifurrahman and Kassim, 2024). The mechanism therefore represents not merely a financial

instrument but a legal-institutional arrangement that translates the objectives of financial inclusion into practical access to formal financing.

3. Institutional Synergy and Socio-Legal Analysis of Credit Guarantee Mechanisms

The effectiveness of credit guarantee mechanisms for MSME financing cannot be understood solely from the existence of guarantee schemes or the amount of financing guaranteed. The mechanism's implementation depends on interactions among government institutions, financial institutions, guarantee institutions, and MSMEs within a broader legal and institutional framework. Each actor performs a different function, but their roles are interconnected through policy formulation, credit assessment, guarantee provision, risk management, monitoring, and claims settlement (Rongiyarti, 2019; Saifurrahman and Kassim, 2024). From a socio-legal perspective, this institutional interaction matters because the effectiveness of legal protection depends not only on the content of legal rules but also on institutions' capacity to implement them in practice (Nurtjahyo, 2021; Wiratraman, 2019).

The government plays a strategic role in setting the policy direction and regulatory framework for credit guarantee mechanisms. Through legislation, regulations, fiscal policies, and government-supported financing programs, the government establishes the conditions under which guarantee institutions and financial institutions operate. Law Number 4 of 2023 on Financial Sector Development and Strengthening provides a broader legal framework for strengthening the financial sector, including financial inclusion and MSME access to financing (Government of Indonesia, 2023). The regulatory framework therefore demonstrates that MSME

financing is not merely a private contractual relationship between banks and borrowers but forms part of a broader public policy architecture.

Within this architecture, financial institutions retain an essential role in assessing MSME borrowers' feasibility and creditworthiness. The existence of a guarantee does not eliminate the responsibility of banks and other financial institutions to apply prudent lending principles. Financial institutions remain responsible for evaluating business capacity, repayment ability, financial records, and other relevant risk indicators (OJK, 2025). The latest regulatory framework emphasizes that easier MSME financing must be paired with adequate governance and risk management, indicating that financial inclusion and prudential principles must operate in tandem (OJK, 2025).

Guarantee institutions, meanwhile, occupy an intermediate position between public policy objectives and financial-sector risk management. Their function is not merely to compensate financial institutions in the event of default but also to facilitate the distribution of credit risk within the applicable regulatory and contractual framework. The guarantee institution therefore serves as an institutional bridge that connects public policy objectives on financial inclusion with the prudential interests of financial institutions (Adhikary, Kutsuna, and Stephannie, 2019). The legal framework governing credit guarantee agreements also emphasizes the need to balance protection for MSMEs, guarantee institutions, and financial institutions within the contractual relationship (Rongiyarti, 2019).

These institutions' interaction requires a clear division of authority and responsibility. The government establishes the policy and regulatory framework; financial institutions conduct credit assessment and provide financing; guarantee

institutions assume an agreed portion of credit risk; and MSMEs utilize financing and remain responsible for fulfilling their contractual obligations. When these functions are properly coordinated, the guarantee mechanism can operate as an integrated institutional arrangement. However, when institutional responsibilities overlap, remain unclear, or are supported by fragmented regulations, implementation may become inefficient and may increase uncertainty concerning risk allocation and claims settlement (Saifurrahman and Kassim, 2024).

Regulatory coherence is therefore central to implementing credit guarantee mechanisms. Multiple regulatory instruments may create difficulties when different institutions operate under different administrative requirements, reporting mechanisms, risk standards, or interpretations of guarantee obligations. Regulatory coherence matters because the current financial-sector framework increasingly requires coordination among financial inclusion objectives, prudential regulation, consumer protection, and digital transformation (OJK, 2025; Bank Indonesia, 2025).

From a socio-legal perspective, regulatory coherence should therefore be assessed not merely by whether regulations formally exist, but by whether they provide an operational framework that relevant institutions can implement consistently. A formally comprehensive regulatory framework may still offer limited practical benefits when institutional procedures are hard to implement, or coordination mechanisms are weak. The distinction between legal availability and practical effectiveness is particularly relevant in financial inclusion because MSMEs may formally qualify for financing but remain unable to access it because of administrative, informational, or institutional barriers (Saifurrahman and Kassim, 2024; Utari et al., 2025).

Institutional coordination is also increasingly dependent on the availability and quality of financial and business data. Credit guarantee mechanisms require accurate information concerning borrowers, financing facilities, credit history, business status, and guarantee exposure. Integrated financial information systems are therefore important for improving data quality and supporting coordination among institutions. This integration aligns with the broader policy direction to strengthen financial infrastructure, data systems, and institutional connectivity in the financial sector (OJK, 2024).

The development of integrated information systems has important socio-legal implications. Digital systems can reduce administrative barriers, improve data accuracy, facilitate institutional coordination, and strengthen transparency. At the same time, digitalization raises new legal questions about data governance, information security, accountability, transparency, and the legal validity of decisions based on automated or data-driven processes (Utari et al., 2025). The transformation of financial services therefore requires legal institutions to adapt to technological developments without weakening legal certainty and protection (Masnun et al., 2025).

Recent empirical research supports the importance of this transformation. Harunurrasyid et al. (2024), using data from 5,553 Indonesian MSMEs, found that digital transformation can reduce dependence on traditional banking systems, improve access to alternative financing, and boost MSME productivity. This finding suggests that digitalization can change the institutional structures through which MSMEs interact with financial institutions and access financing.

Digital financial inclusion also has implications for the relationship between government support and MSME performance. Tandilino et al. (2025), using survey

data from 260 culinary MSMEs in Indonesia, examined digital financial inclusion as a mechanism linking digital financial literacy and government support to MSME performance. Their findings indicate that digital financial inclusion is an important mechanism through which technological and institutional support can translate into improved MSME outcomes (Tandilino et al., 2025).

The digital transformation of financial services consequently requires coordination between technological innovation and institutional governance. Digital systems may accelerate financing processes, improve information exchange, and reduce transaction costs, but these benefits depend on institutional capacity, data quality, digital literacy, and regulatory safeguards. Digital financial inclusion should therefore be accompanied by appropriate institutional arrangements to ensure that technological innovation does not create new forms of exclusion (Putra, Igorevna, and Adiandari, 2025).

This issue is particularly relevant for credit guarantee mechanisms because digitalization can affect credit assessment, guarantee application, risk analysis, monitoring, and claims administration. Using digital information may enable institutions to assess MSME activities more efficiently. Still, it may also raise new questions about the quality and legality of the data used in decision-making. The institutional challenge is therefore not simply to digitize existing procedures but to ensure that digital processes remain transparent, accountable, and consistent with legal protection principles (Utari et al., 2025).

Risk management constitutes another important dimension of institutional synergy. Credit guarantees redistribute part of the risk associated with MSME financing, but they do not eliminate risk. Financial institutions, guarantee institutions,

and government agencies therefore need to establish appropriate mechanisms for risk assessment, underwriting, monitoring, claims management, and accountability (Adhikary, Kutsuna, and Stephannie, 2019). Recent regulatory developments reinforce this principle by requiring governance and risk management to accompany policies that facilitate MSME financing (OJK, 2025).

Balanced risk management matters because government-supported guarantees involve public policy objectives as well as financial-sector considerations. If guarantee coverage is designed without adequate risk assessment, the mechanism may encourage moral hazard or inefficient financing allocation. Conversely, if risk management requirements are overly restrictive, the guarantee mechanism may fail to reach MSMEs facing genuine financing constraints (Mulyati, Murwadi, and Bernike, 2025).

Recent research on performance guarantees for MSMEs also demonstrates the importance of aligning financing innovation with appropriate risk-management mechanisms. Mulyati et al. (2025) examine performance guarantees in digital marketplace-based MSME financing and emphasize the role of guarantee arrangements in facilitating access to funding while maintaining mechanisms to manage financing risks. This perspective is relevant to developing guarantee mechanisms beyond conventional bank-based financing.

Institutional synergy also requires effective monitoring mechanisms. Monitoring should not be limited to the distribution of guaranteed financing. It should also extend to the quality of financing, repayment performance, guarantee claims, institutional compliance, and the mechanism's actual accessibility to MSMEs. The OJK Roadmap for Microfinance Institutions 2024–2028, for example, emphasizes governance, risk

management, supervision, consumer empowerment, ecosystem development, and data and information infrastructure as interconnected priorities (OJK, 2024).

From this perspective, accountability becomes central to the guarantee mechanism's socio-legal functioning. Government institutions must be accountable for policy design and the use of public resources; financial institutions must be accountable for prudent lending; guarantee institutions must be accountable for guarantee underwriting and claims management; and MSMEs must be accountable for using and repaying financing. The distribution of responsibilities must therefore be accompanied by corresponding mechanisms of transparency and institutional accountability (Utari et al., 2025).

The interaction among institutions can be conceptualized as a governance chain rather than a linear process. Government establishes the regulatory and policy framework; financial institutions assess and provide financing; guarantee institutions share defined credit risks; information systems facilitate data exchange; and monitoring institutions evaluate compliance and performance. MSMEs remain the central beneficiaries and participants in this institutional arrangement. The system's effectiveness depends on whether these actors can operate within a coherent legal and institutional framework (Saifurrahman and Kassim, 2024).

This configuration aligns with the central argument of Law and Development Theory, which views law not merely as a system of formal rules but as an institutional instrument that can support economic and social development. In the context of MSME financing, law creates institutional arrangements that allow economic actors to overcome structural barriers to participation in formal financial markets. The

guarantee mechanism shows how legal rules can establish a structured form of risk sharing that supports productive economic activity (Savitri et al., 2026).

From the perspective of Law and Development Theory, the effectiveness of legal institutions can therefore be examined through their capacity to facilitate economic participation, reduce transaction barriers, and create predictable institutional relationships. A guarantee mechanism that is formally established but difficult to access, administratively complex, or poorly coordinated would have limited developmental value. Conversely, a coherent guarantee system can strengthen the institutional infrastructure MSMEs need to participate in formal economic activities (Rongiyarti, 2019; Saifurrahman and Kassim, 2024).

The developmental function of law is also evident in the relationship between legal certainty and institutional trust. Financial institutions require predictable rules concerning guarantee coverage, claims, and risk allocation before expanding financing to borrowers perceived as relatively risky. Guarantee institutions require clear legal authority and enforceable procedures to manage their obligations. MSMEs need clear, accessible procedures to obtain financing. Consequently, legal certainty provides an institutional foundation for trust among actors participating in the guarantee mechanism (Rongiyarti, 2019).

The Law and Development perspective also highlights the importance of institutional capacity. Legal reform without corresponding institutional capacity may produce a gap between law in books and law in action. In the context of credit guarantees, such a gap may arise when regulations establish extensive responsibilities but institutions lack adequate human resources, information systems, technological infrastructure, or coordination mechanisms to implement them effectively (Nurtjahyo,

2021). The socio-legal analysis therefore needs to examine not only the normative framework but also the institutional conditions under which the framework operates.

The mechanism can simultaneously be understood through Welfare State Theory. The state does not merely establish rules for private economic transactions but also has a responsibility to create institutional conditions that enable broader participation in economic resources. Credit guarantee schemes may perform such a function by sharing part of the financing risk and facilitating access to formal financial resources for MSMEs that face structural disadvantages in conventional credit markets (Dimiyati et al., 2021).

The welfare-state dimension does not mean that the state assumes all financial risks on behalf of MSMEs or financial institutions. Rather, the state's role is to design an institutional arrangement that distributes risks and responsibilities in ways that support public objectives while maintaining financial sustainability. The guarantee mechanism therefore reflects indirect state intervention: the state establishes and supports the institutional framework. At the same time, financial institutions continue to assess credit, and guarantee institutions manage defined portions of credit risk (OJK, 2025).

This arrangement illustrates the relationship between social protection and economic development. MSMEs that have difficulty obtaining financing may face limitations in working capital, investment, business expansion, and job creation (Nugroho, Arinto, Ronaboyd et al., 2024; Sulistyowati, Eny, Muh. Ali Masnun, 2025). Facilitating access to formal financing can therefore have implications beyond the individual borrower by supporting broader economic participation and productive

activity (Ratnawati, 2020). The guarantee mechanism can consequently be viewed as part of a broader welfare-oriented financial policy.

Nevertheless, the welfare-state function of credit guarantees must be balanced with principles of accountability and sustainability. Publicly supported financing cannot be distributed without adequate consideration of repayment capacity, business viability, and risk. The state must therefore avoid designing a system in which social objectives undermine financial discipline (Masnun, Muh Ali, Prasetyo, Dicky Eko, Konara, 2026). Instead, the welfare function should be realized through institutional arrangements that provide targeted support while maintaining appropriate standards of risk management (Mulyati, Murwadi, and Bernike, 2025).

The socio-legal analysis also shows that institutional synergy does not automatically arise from regulations. Coordination requires continuous interaction among institutions, shared information, compatible procedures, and clear responsibility allocation. Differences in institutional interests may create coordination challenges. Government institutions may emphasize inclusion and economic development, financial institutions may emphasize prudential lending, guarantee institutions may emphasize risk sustainability, and MSMEs may prioritize accessible, simple procedures. These potentially different orientations must be reconciled through an institutional framework that provides balanced incentives and clear responsibilities (Saifurrahman and Kassim, 2024).

The challenge becomes more complex as the economic and technological environment changes. Economic uncertainty, changes in MSME business models, digital financial services, and the increasing availability of alternative sources of financial data require guarantee institutions and financial institutions to adapt their

risk-management approaches continuously. Regulatory frameworks that cannot respond to these changes may create gaps between institutional practice and legal requirements (Utari et al., 2025; Putra, Igorevna, and Adiandari, 2025).

Digitalization can therefore become both an opportunity and a challenge for institutional synergy (Nurul Hikmah, Syahid Akhmad Faisol, Dicky Eko Prasetyo, Kamaluddin Nurdin Marjuni, 2026). On the one hand, integrated digital systems can facilitate data sharing, reduce duplication, improve monitoring, and accelerate guarantee processes. On the other hand, fragmented digital platforms, incompatible databases, inadequate data governance, or unclear legal responsibilities can generate new institutional risks. Digital transformation must consequently be accompanied by regulatory harmonization and institutional coordination (Harunurrasyid et al., 2024; Tandilino et al., 2025).

The broader development of financial inclusion policy in Indonesia also demonstrates the importance of cross-institutional coordination. The government has emphasized the need to reach underserved groups, including MSMEs, while also recognizing the importance of digital infrastructure and local government support in expanding financial inclusion (Coordinating Ministry for Economic Affairs, 2025). This policy direction indicates that financial inclusion increasingly depends on cooperation among central government institutions, local governments, financial-sector authorities, and financial-service providers.

Institutional adaptation is also reflected in recent organizational developments within OJK. In December 2025, OJK established a dedicated MSME and Sharia Financial Development Department and a Directorate of Digital Banking Supervision, reflecting an institutional effort to respond to financial-system transformation through

more integrated and adaptive supervision (OJK, 2025). These developments demonstrate that institutional structures themselves must evolve alongside changes in financial services and MSME financing.

In this context, institutional synergy should not be understood merely as cooperation between organizations but as the creation of an integrated governance structure. Such governance requires coherent regulations, reliable information systems, clear institutional mandates, appropriate risk-sharing arrangements, transparent monitoring, and effective accountability. These elements collectively determine whether the legal framework can produce practical benefits for MSMEs (OJK, 2024; OJK, 2025).

The findings therefore indicate that the effectiveness of credit guarantee mechanisms depends on the quality of institutional relationships surrounding the guarantee process. A guarantee mechanism may have substantial financial resources and broad policy support. Still, its contribution to financial inclusion will remain limited if institutional coordination is weak, regulatory requirements are inconsistent, or MSMEs cannot navigate the system effectively. The socio-legal dimension lies in understanding how formal legal arrangements interact with institutional capacity, economic conditions, technological developments, and the experiences of MSME actors (Nurtjahyo, 2021; Utari et al., 2025).

Accordingly, the institutional synergy of credit guarantee mechanisms can be conceptualized as a three-dimensional relationship involving legal coherence, institutional coordination, and socio-economic accessibility. Legal coherence provides the normative foundation; institutional coordination translates the framework into operational practice; and socio-economic accessibility determines whether the

mechanism produces meaningful benefits for MSMEs. These three dimensions are interdependent and cannot be evaluated separately.

From the perspective of Law and Development Theory, the configuration shows that law can function as institutional infrastructure for economic development by organising risk, reducing uncertainty, and facilitating participation in formal financial markets (Savitri et al., 2026). From the perspective of Welfare State Theory, the same mechanism shows how state-supported institutional arrangements can address structural disadvantages in access to economic resources while maintaining accountability and financial sustainability (Dimyati et al., 2021).

The socio-legal analysis consequently suggests that the future development of credit guarantee mechanisms should move beyond a narrow focus on guarantee volume and financing distribution. Greater attention should be given to regulatory harmonisation, institutional capacity, digital governance, risk-based management, data integration, transparency, and MSMEs' practical experiences in accessing the system (OJK, 2025; Putra, Igorevna, and Adiandari, 2025).

Overall, institutional synergy is critical to transforming credit guarantees from a financial risk-sharing instrument into an effective legal and institutional mechanism for inclusive economic development. The interaction among government, financial institutions, guarantee institutions, information systems, and MSMEs determines how legal rules are translated into practical financing opportunities. The combination of Law and Development Theory and Welfare State Theory therefore shows that the effectiveness of credit guarantee mechanisms lies not only in the existence of legal protection but also in institutions' capacity to coordinate, adapt, manage risk, and ensure that the benefits of formal financing are accessible to MSMEs in practice.

The institutional and socio-legal analysis developed in this section covers four interconnected dimensions that determine the effectiveness of credit guarantee mechanisms for MSME financing. These dimensions are not separate elements; they form an integrated institutional framework in which legal rules, institutional functions, risk allocation, technological development, and the practical accessibility of financing interact. Accordingly, the analysis is structured around four principal dimensions: (1) regulatory and institutional coherence; (2) institutional coordination and distribution of authority; (3) risk governance, accountability, and sustainability; and (4) digital transformation and adaptive legal governance.

First, regulatory and institutional coherence constitutes the normative foundation of the credit guarantee mechanism. The effectiveness of a guarantee system depends on whether the legal instruments governing MSME financing, banking activities, guarantee institutions, government programs, consumer protection, and financial inclusion work together in a mutually supportive way. Regulatory coherence is important because the guarantee mechanism involves several institutions with different legal mandates and operational responsibilities. Where regulations are fragmented or inconsistent, differences in interpretation may emerge concerning eligibility, guarantee coverage, credit assessment, claims procedures, monitoring, and institutional responsibility. Such conditions may increase transaction costs and create uncertainty for both financial institutions and MSMEs (Saifurrahman and Kassim, 2024).

Regulatory coherence is particularly important in Indonesia because a combination of general financial-sector regulations, specific credit-program regulations, guarantee regulations, banking prudential requirements, and financial

inclusion policies governs MSME financing. The enactment of Law Number 4 of 2023 on Financial Sector Development and Strengthening provides a broader institutional framework to strengthen the financial sector and expand access to financial services. The subsequent development of regulations on MSME financing and guarantee institutions indicates an effort to better integrate financial inclusion objectives with prudential principles (Government of Indonesia, 2023; OJK, 2025). The analytical issue is therefore not simply whether regulations exist, but whether the regulatory framework is sufficiently coherent to support consistent institutional implementation.

From a socio-legal perspective, regulatory coherence must also be examined through its consequences for implementation-level actors. Regulations that appear comprehensive at the normative level may still produce limited benefits when administrative requirements are excessive, institutional procedures overlap, or information is not shared effectively. This distinction between the formal existence of legal protection and its practical accessibility is important in understanding financial inclusion among MSMEs (Nurtjahyo, 2021; Utari et al., 2026). Consequently, regulatory coherence should be measured not only through the number of regulations issued but through their capacity to create predictable, accessible, and implementable institutional arrangements.

Second, institutional coordination and distribution of authority constitute the operational dimension of the guarantee mechanism. The government, financial institutions, guarantee institutions, regulatory authorities, and MSMEs do not perform identical functions. The government sets policy direction and provides the broader regulatory and, where applicable, fiscal framework; financial institutions assess borrowers and provide financing; guarantee institutions manage defined portions of

credit risk; regulatory authorities set supervisory standards; and MSMEs use financing while fulfilling their contractual obligations. The effectiveness of the guarantee mechanism therefore depends upon whether these functions are appropriately distributed and coordinated.

Institutional coordination is particularly important where the responsibilities of different institutions intersect. Credit assessment, guarantee approval, data verification, guarantee claims, and post-disbursement monitoring require information exchange and synchronized institutional procedures. A weakness in one stage can undermine the effectiveness of later stages. For example, incomplete borrower information may affect credit assessment; inadequate coordination between lenders and guarantee institutions may delay guarantee processing; and weak monitoring may increase uncertainty concerning the quality of guaranteed financing. Institutional synergy should therefore be understood as an operational relationship rather than merely as a formal statement of cooperation (Rongiyarti, 2019).

The coordination dimension also requires attention to MSMEs' position. MSMEs are not merely passive recipients of government-supported financing but active participants in the institutional process. Their ability to register, prepare financial documentation, provide business information, understand financing obligations, and comply with institutional procedures affects how much they can access formal financing mechanisms in practice (Saifurrahman and Kassim, 2024). Consequently, institutional coordination should be designed not only from the perspective of inter-agency cooperation but also from the perspective of MSMEs' capacity to interact with the system.

This point is particularly significant from a socio-legal perspective because institutional effectiveness cannot be separated from the social and economic characteristics of the actors who are expected to use the legal system. A formal financing program does not automatically ensure effective access when MSMEs lack the information, administrative capacity, digital capability, or financial literacy needed to navigate the relevant procedures (Tandilino et al., 2025). Institutional synergy therefore requires mechanisms that reduce unnecessary administrative complexity while maintaining appropriate standards of accountability and prudential assessment (Muh. Ali Masnun, 2026).

Third, risk governance, accountability, and sustainability constitute the substantive dimension of institutional synergy. Credit guarantee mechanisms are fundamentally mechanisms for allocating and managing risk. The guarantee institution assumes an agreed portion of the credit risk, but the financial institution retains responsibility for appropriate credit assessment, while the MSME remains responsible for repayment. Meanwhile, the government must ensure that public-supported guarantee arrangements are designed and implemented in accordance with principles of accountability and sustainability (Adhikary, Kutsuna, and Stephannie, 2019).

Risk distribution can create both positive and negative institutional incentives. On the positive side, risk sharing may encourage financial institutions to consider viable MSMEs that face limitations in conventional collateral requirements. On the negative side, insufficiently designed guarantee arrangements may weaken incentives for prudent lending or encourage moral hazard. Institutional design must therefore ensure that the guarantee does not substitute for credit assessment but operates as a

complementary risk-management mechanism (Mulyati, Murwadi, and Bernike, 2025).

Accountability is consequently required at each stage of the guarantee process. Financial institutions must show that financing decisions are based on appropriate assessments; guarantee institutions need transparent underwriting and claims procedures; government agencies need mechanisms to monitor the use of public resources; and MSMEs must comply with financing obligations (Samsithawrati et al., 2025). The distribution of institutional responsibilities should therefore be accompanied by corresponding mechanisms of transparency, documentation, supervision, and evaluation (OJK, 2025).

Sustainability also requires the guarantee system to maintain an appropriate balance between inclusion and financial discipline. A system that prioritises only financing expansion may create excessive risk exposure, while a system that prioritises only risk minimization may fail to reach MSMEs that genuinely face financing constraints. The policy challenge is therefore to construct a risk-sharing arrangement that is sufficiently inclusive without weakening the sustainability of the financial and guarantee institutions involved (Adhikary, Kutsuna, and Stephannie, 2019; Mulyati, Murwadi, and Bernike, 2025).

This dimension connects to Welfare State Theory. The state's intervention through guarantee mechanisms is not intended to eliminate market mechanisms but to address structural limitations that prevent certain economic actors from participating equally in formal financial markets. The state therefore serves a facilitating and corrective function by creating institutional conditions that expand access to economic

resources while distributing responsibility and accountability among participating actors (Dimiyati et al., 2021).

Fourth, digital transformation and adaptive legal governance constitute an increasingly important dimension of institutional synergy. The development of digital financial services, integrated databases, digital credit assessment, and electronic guarantee processes is changing how financial institutions, guarantee institutions, government agencies, and MSMEs interact. Digitalization can reduce administrative costs, speed up information exchange, improve monitoring, and potentially broaden access to financial services. However, it also creates new legal and institutional challenges concerning data protection, information accuracy, cybersecurity, algorithmic decision-making, transparency, and accountability (Utari et al., 2025).

The digital dimension is particularly relevant because MSME financing increasingly relies on information beyond traditional financial statements. Transaction histories, digital payment records, marketplace activities, and other forms of alternative data may provide additional information about MSMEs' economic activities. Research on Indonesian MSMEs indicates that digital transformation may influence access to alternative financing and strengthen business productivity (Harunurrasyid et al., 2024). Such developments create opportunities for guarantee institutions and financial institutions to develop more comprehensive approaches to assessing MSME risk.

At the same time, digitalization should not automatically be equated with greater inclusion. Differences in digital literacy, technological infrastructure, access to digital services, and institutional capacity may produce new forms of exclusion. Digital financial inclusion therefore requires not only technological infrastructure but also

institutional support, financial literacy, regulatory safeguards, and accessible mechanisms for addressing disputes or errors in digital decision-making (Tandilino et al., 2025).

The legal framework must therefore evolve alongside technological development. A regulatory system designed exclusively for conventional financing procedures may become less responsive when financing decisions increasingly depend on digital information and automated processes. The challenge for legal governance is to maintain legal certainty while providing sufficient flexibility to accommodate technological innovation. In this context, developing an adaptive legal framework becomes an important component of institutional capacity (Utari et al., 2025).

The four dimensions identified above are interconnected. Regulatory coherence provides the legal foundation for institutional coordination; institutional coordination determines how responsibilities and information are distributed; risk governance ensures that the distribution of responsibilities remains sustainable and accountable; and digital transformation provides new tools to improve institutional efficiency while also generating new regulatory challenges. Weakness in any one of these dimensions may reduce the effectiveness of the overall guarantee mechanism.

The effectiveness of credit guarantee mechanisms depends on coherent regulations, effective coordination among institutions, appropriate risk governance and accountability, and the ability to adapt to digital transformation. When these elements operate together, credit guarantees can function more effectively as an institutional mechanism that reduces financing barriers and supports sustainable financial inclusion for MSMEs (Saifurrahman and Kassim, 2024; Utari et al., 2025; OJK, 2025).

This relationship should not be understood as a simple linear causal model. Rather, it represents an institutional cycle in which developments in one dimension may influence the others. For example, digitalization may require regulatory adaptation; regulatory changes may alter institutional responsibilities; changes in institutional responsibilities may affect risk allocation; and changes in risk allocation may require new monitoring and accountability mechanisms. The guarantee mechanism therefore operates within a dynamic legal and institutional environment.

From the perspective of Law and Development Theory, this institutional cycle demonstrates that the developmental function of law depends upon the capacity of legal institutions to respond to changing economic and technological conditions. Law provides the institutional infrastructure to organise economic relationships, reduce uncertainty, and facilitate participation in productive activities. The effectiveness of law is therefore reflected not only in formal legal certainty but also in its capacity to support functioning institutions and adaptive economic governance (Savitri et al., 2026).

From the perspective of Welfare State Theory, this institutional cycle shows that financial inclusion requires more than formally providing financing opportunities. The state must establish conditions that enable economically viable but structurally constrained groups to participate in formal financial markets. Credit guarantees are one such intervention because they redistribute some financing risk while maintaining the responsibilities of financial institutions and borrowers. The welfare function is therefore realized through institutional design rather than through the state assuming all financial risks (Dimyati et al., 2021).

The four-dimensional framework also provides a basis for evaluating the effectiveness of the existing credit guarantee mechanism. Regulatory coherence can be evaluated through the consistency and clarity of the applicable legal framework. Institutional coordination can be evaluated through the clarity of mandates, information exchange, and inter-agency procedures. Risk governance and accountability can be evaluated through underwriting standards, monitoring, claims management, transparency, and sustainability. Digital adaptation can be evaluated by institutions' capacity to integrate technology while maintaining legal protection, data governance, and accessibility.

This analytical framework matters because the success of a credit guarantee mechanism cannot be measured solely by the amount of financing guaranteed or the number of MSME debtors served. Those indicators demonstrate scale, but they do not fully reveal whether the institutional mechanism is coherent, accessible, accountable, sustainable, and adaptive. A more comprehensive assessment therefore requires examination of the legal and institutional processes through which financing is made available and managed.

Accordingly, the socio-legal findings show that the effectiveness of credit guarantee mechanisms depends on how law, institutions, economic incentives, risk governance, and technological transformation interact. The guarantee mechanism functions effectively when these elements reinforce one another. Conversely, regulatory fragmentation, weak coordination, inadequate risk management, or digital exclusion may limit the mechanism's ability to achieve its intended objectives.

This analysis ultimately strengthens the position that credit guarantees should be understood not merely as financial instruments but as institutional legal mechanisms

embedded within a broader governance system. Their effectiveness depends upon the capacity of the state and participating institutions to construct coherent rules, coordinate institutional functions, distribute risks responsibly, adapt to technological change, and ensure that MSMEs can access and utilize formal financing in practice. In this sense, the institutional synergy surrounding credit guarantees becomes a key determinant of whether legal protection can translate into meaningful financial inclusion and, ultimately, inclusive economic development.

C. CONCLUSION

This study demonstrates that legal protection through credit guarantee mechanisms plays an important institutional role in facilitating MSME access to formal financing and supporting financial inclusion in Indonesia. The findings indicate that credit guarantees can reduce financing barriers arising from collateral limitations, information asymmetry, and perceived credit risks by establishing a structured mechanism for sharing risks among government institutions, financial institutions, guarantee institutions, and MSMEs. However, the mechanism's effectiveness depends not merely on the existence or volume of guarantee programs, but on how legal protection is implemented within the institutional and socio-economic context.

The socio-legal analysis further demonstrates that the effectiveness of credit guarantee mechanisms is shaped by four interconnected dimensions: regulatory and institutional coherence, institutional coordination and distribution of authority, risk governance and accountability, and digital transformation and adaptive legal governance. Regulatory coherence provides the legal foundation, institutional coordination translates legal arrangements into operational practices, and risk

governance ensures sustainability and accountability. At the same time, digital adaptation enables the system to respond to changes in financial services and MSME financing practices. Weakness in any of these dimensions may create a gap between formal legal protection and effective access to financing.

The findings also indicate that financial inclusion should not be measured solely by the amount of financing distributed or the number of MSMEs receiving credit. Meaningful financial inclusion requires MSMEs' capacity to obtain, utilise, and sustain access to formal financial services. From this perspective, credit guarantees function not simply as instruments for expanding financing, but as institutional mechanisms that can reduce structural barriers to financial participation. This distinction matters because the existence of formal financing opportunities does not automatically ensure effective access for MSMEs facing administrative, informational, financial, or technological constraints.

Viewed through Law and Development Theory, the findings demonstrate that law can function as institutional infrastructure for economic development by organising risk-sharing arrangements, reducing uncertainty, and facilitating MSME participation in formal financial markets. From the perspective of Welfare State Theory, credit guarantee mechanisms reflect the state's facilitating and corrective role in addressing structural limitations in access to economic resources. The state does not assume all financial risks. Still, it creates an institutional framework that distributes responsibilities and risks among relevant actors while maintaining principles of accountability and financial sustainability.

The study therefore contributes to the socio-legal understanding of credit guarantees by positioning them as a legal-institutional bridge between legal protection,

risk sharing, and sustainable MSME financial inclusion. This perspective extends the understanding of credit guarantees beyond their conventional function as financial risk-management instruments. Their effectiveness should instead be assessed through interactions among legal rules, institutional capacity, economic conditions, risk governance, technological development, and MSMEs' actual experiences accessing formal financing.

The findings have several policy implications. Strengthening the credit guarantee system requires greater regulatory harmonization, clearer institutional mandates, more effective inter-institutional coordination, integrated financial and business data, transparent claims and monitoring mechanisms, and proportionate risk-management standards. At the same time, digital transformation should be accompanied by adequate safeguards concerning data governance, information security, transparency, accountability, and accessibility. Such measures are necessary to ensure that digitalization expands financial inclusion rather than creating new forms of institutional or technological exclusion.

Ultimately, the sustainability of credit guarantee mechanisms depends on balancing financial inclusion, legal protection, risk management, and institutional accountability. A guarantee system that focuses only on expanding financing may increase financial risks, while excessive risk restrictions may limit access for viable MSMEs. The appropriate institutional approach therefore combines accessibility with prudential standards and public accountability.

This study is based on a socio-legal analysis of the regulatory and institutional framework and available evidence concerning credit guarantee mechanisms in Indonesia. Future research may strengthen this analysis through comparative studies

across guarantee institutions, longitudinal examination of MSME beneficiaries, and primary empirical research involving MSMEs, financial institutions, guarantee institutions, and government actors. Such research would provide further evidence concerning how legal and institutional arrangements affect the sustainability and quality of financial inclusion.

Overall, credit guarantee mechanisms should be understood as part of a broader legal and institutional ecosystem for inclusive economic development. Their success depends not only on the scale of guarantees provided, but on their ability to translate formal legal protection into accessible, responsible, and sustainable financing opportunities for MSMEs. Strengthening this institutional ecosystem is therefore essential for ensuring that legal protection contributes meaningfully to financial inclusion and broader economic participation in Indonesia.

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