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JIRK
Journal of Innovation Research and Knowledge
Vol.6, No.4, September 2026
https://doi.org/10.53625/jirk.v6i4.13184

Strengthening Msme Business Owners, Village Credit Institutions (Lpds) In Bali, And The Indonesia Deposit Insurance Corporation (LPS) Through A Digital Ecosystem

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Received: 03/07/2026 | Accepted: 06/08/2026 | Publication: 05/09/2026

Abstract: *The development of digital ecosystems has become increasingly essential for the sustainability and growth of Micro, Small, and Medium Enterprises (MSMEs), enabling businesses to expand market access and interact with consumers without spatial and temporal limitations. In Bali, MSME development business owner is closely linked to the presence of local financial institutions, particularly Village Credit Institutions (LPD), which play a strategic role in providing accessible financial services at the community level. At the same time, maintaining financial system stability is crucial, with deposit insurance serving as an important instrument to enhance public trust. The Indonesia Deposit Insurance Corporation (LPS) plays a key role in guaranteeing public deposits; however, not all LPDs are currently integrated into this system. This condition creates potential risks related to depositor protection and financial security, especially for MSMEs that rely on local financial institutions. This study aims to analyze the influence of digital ecosystems on MSME development business owner self efficacy, examine the role of LPDs in supporting MSMEs, and evaluate the impact of deposit insurance on public trust and financial system stability. In addition, this study highlights the importance of resilience in the digital financial ecosystem, emphasizing the capacity of MSMEs and local financial institutions to adapt to economic uncertainty, technological change, and financial risks. Furthermore, this study seeks to explore strategies for integrating LPDs into the LPS system to strengthen financial security and promote a more stable and inclusive financial system at the local level with the involvement of MSMES business owner self-efficacy.*
Keywords: *Digital Ecosystem; MSMEs; Village Credit Institutions (LPD); Financial System Stability; Indonesia Deposit Insurance Corporation (LPS), Business Owner Self-Efficacy.*

How to Cite: Indaryanto, A., Hermawan, D., Soemarlan, I. S., Alamanda, K. P., & Siri, A. (2026). Strengthening MSME business owners, Village Credit Institutions (LPDs) in Bali, and the Indonesia Deposit Insurance Corporation (LPS) through a digital ecosystem. *Journal of Innovation Research and Knowledge, 6*(4), 2283–2292. https://doi.org/10.53625/jirk.v6i4.13184

INTRODUCTION

In recent years, the digital ecosystem for Micro, Small, and Medium Enterprises (MSMEs) has become essential for business sustainability and growth (Tambunan, 2005). Through digitalization, MSMEs are able to expand market access and interact with consumers without limitations of distance and time. This transformation is particularly important in

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supporting competitiveness and financial inclusion in the modern economy (Wang et al., 2022; Yue et al., 2022).

However, in regions such as Denpasar, the development of MSMEs cannot be separated from the role of local financial institutions. Community-based institutions such as Village Credit Institutions (LPD) play a significant role in providing accessible financial services at the village level. The presence of LPDs across almost all administrative villages in Bali reflects their importance in supporting local economic activities and empowering MSMEs.

In this context, maintaining financial system stability becomes crucial (Prihandini & Safaria, 2025). One of the key instruments in ensuring financial stability is the Indonesia Deposit Insurance Corporation (LPS) (Susanto et al., 2020) , which guarantees public deposits and enhances trust in financial institutions. However, not all LPDs are currently covered or registered under LPS, creating potential risks related to depositor protection and financial security at the community level.

Therefore, this study aims to emphasize the importance of ensuring that all financial institutions, including LPDs at the village level, are integrated into the LPS system. Such integration is expected to strengthen public confidence, provide greater financial security, and contribute to a more stable and inclusive financial system for MSMEs and the broader community.

This study examines how the digital ecosystem influences the development of MSMEs in Denpasar, Bali as well as the role of Village Credit Institutions (LPD) in supporting MSME activities. Furthermore, it explores how deposit insurance provided by the Indonesia Deposit Insurance Corporation (LPS) affects public trust and financial system stability. Finally, this study investigates how LPDs can be effectively integrated into the LPS system to enhance financial security and stability at the local level with the involvement of MSMES business owner self-efficacy.

LITERATURE REVIEW

The first literature from Tri et al., 2021The literature highlights that microfinance institutions (MFIs) play a crucial role in supporting low-income communities, particularly those who lack access to formal financial services. In Indonesia, one unique form of microfinance is the Village Credit Institution (Lembaga Perkreditan Desa/LPD), a traditional financial institution rooted in Balinese customary law. The LPD was established to manage village finances and improve the economic welfare of indigenous communities, initially focusing on supporting religious and cultural activities but gradually expanding into broader economic functions.

The primary functions of LPD include mobilizing community funds, providing credit, and promoting local economic development. It aims to enhance the standard of living of village members, support rural development, and preserve cultural values. Compared to formal financial institutions, LPD offers several advantages, such as simpler procedures, lower interest rates, and a system based on trust and social cohesion. Its operations are guided by customary rules (*awig-awig*) and managed through a familial and community-based approach, which strengthens accountability and community participation.

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Furthermore, LPD has significantly contributed to the growth of the informal sector in Bali by providing accessible capital to small-scale entrepreneurs, especially during times of economic crisis when formal financial institutions are less accessible. Its resilience is closely tied to strong social and cultural values, particularly the high level of community compliance with customary norms. Additionally, a large portion of LPD's profits is redistributed to support village development, including physical infrastructure and social programs, making it a key driver of local economic sustainability.

However, despite its success, LPD faces several challenges, particularly in terms of its legal status within the national financial system. There are inconsistencies between customary-based operations and formal regulatory frameworks, which create uncertainty regarding its legal standing. Moreover, limitations in human resources and management capacity remain ongoing concerns. Therefore, strengthening the legal framework and improving institutional capacity are essential to ensure the long-term sustainability and effectiveness of LPD as a microfinance institution

The second literature from (Fadhilah et al., 2023).The article discusses the legal and institutional framework governing deposit insurance in Indonesia, particularly focusing on the role and function of the Deposit Insurance Corporation (LPS). It explains that LPS was established to maintain public confidence in the banking system by guaranteeing customer deposits and handling bank failures. The study highlights how legal regulations define the scope of LPS authority, including deposit guarantees, bank resolution mechanisms, and coordination with other financial authorities. Furthermore, the article emphasizes the importance of public understanding of deposit insurance schemes, as limited awareness can affect trust in financial institutions. It also addresses challenges in implementing effective protection, such as regulatory gaps and institutional coordination. Overall, the paper underlines that strengthening legal frameworks, improving public literacy, and enhancing institutional performance are essential to ensure financial system stability and protect depositors

The next literature from (Widya Kurniasari, 2007).The article discusses the role of *Lembaga Perkreditan Desa* (LPD) as a community-based microfinance institution in Bali that operates within the framework of traditional village (desa adat) structures. It highlights how LPDs function not only as financial intermediaries providing savings and credit services, but also as socio-cultural institutions that reinforce local values, customary law, and collective economic resilience. The development of LPDs is closely linked to regional autonomy policies and efforts to strengthen local economies, particularly in rural areas. Drawing on concepts from microfinance and community-based development, the article emphasizes that LPDs have demonstrated relatively strong performance, including low levels of non-performing loans, due to social cohesion, trust, and customary enforcement mechanisms embedded in Balinese society. Furthermore, the study suggests that the sustainability of LPDs lies in their hybrid nature—combining formal financial management with informal social control—making them an effective model for poverty alleviation and grassroots economic empowerment.

The next literature also from (Nyoman & Badrika, 2025).The article examines the role of traditional village institutions (desa adat) in governing Village Credit Institutions (LPD) in

Bali, particularly in Punggul Village, through the lens of local wisdom values, especially *catur purusa artha*. It highlights that governance challenges such as conflicts of interest, weak management systems, and disputes often arise due to overlapping authority and reliance on customary rules (*awig-awig*), which may not fully align with modern financial governance standards. To address this, the study uses a combination of normative and empirical legal research, incorporating interviews, observations, and document analysis to evaluate governance practices.

The findings show that LPD Punggul has implemented key principles of good governance—transparency, accountability, responsibility, independence, and fairness—integrated with local cultural and religious values. Transparency is reflected in routine meetings and open financial reporting, while accountability is strengthened through structured financial systems, internal controls, and community oversight. Responsibility is demonstrated through social contributions, such as allocating profits for village development and cultural activities, while independence is maintained through clear division of roles and decision-making processes to avoid domination and conflicts of interest . Fairness and equality are evident in inclusive participation, equal opportunities for employment, and equitable profit distribution among community members. Overall, the study concludes that integrating local wisdom values with modern governance principles can create a transparent, accountable, and sustainable financial institution that not only supports economic development but also strengthens social and cultural cohesion within the traditional village community.

Although previous studies have extensively discussed the role of *desa adat* in the governance of Village Credit Institutions (LPD), particularly in relation to transparency, accountability, and the integration of local wisdom values, there is still limited attention given to the aspect of consumer protection. Most literature focuses on internal governance mechanisms and cultural legitimacy, while looking the importance of external protection systems for customers. In particular, the role of the Deposit Insurance Corporation (*Lembaga Penjamin Simpanan* / LPS) in safeguarding LPD consumers in Bali has not been adequately addressed. This gap is significant, considering that LPDs manage public funds and are exposed to financial risks, making consumer protection a crucial component in ensuring trust, stability, and sustainability of these institutions.

Meanwhile, in the triadic reciprocal causation model of social cognitive theory, self-efficacy is a crucial factor influencing human behavior, driven by the interaction between personal factors, behavioral patterns, and environmental events (Mozahem, 2022). In this context, an individual's confidence in their abilities will influence their actions and interactions within their social context. Self-efficacy is a concept that explains the initiation and persistence of individual behavior in the face of challenges (Bandura, 1977, 1986)

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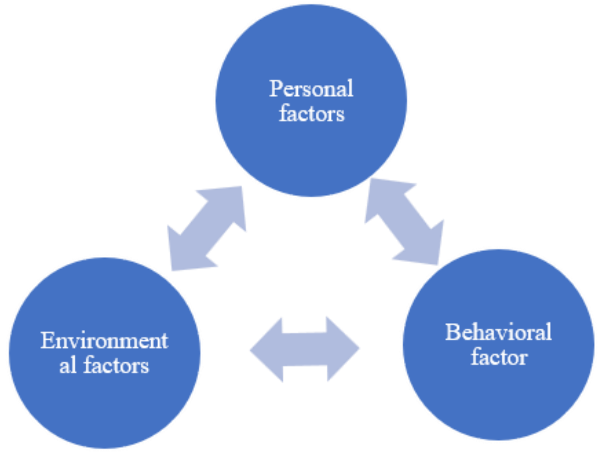

Figure 1. The Concept of Triadic Reciprocal Causation (Bandura, 1986).

METHODOLOGY

This study adopts a quantitative research design using survey data collected from 280 respondents in Denpasar. The study aims to examine the relationships between the digital ecosystem, financial literacy, institutional knowledge, trust, and financial system stability within the context of Village Credit Institutions (LPD).

Data were collected through a structured questionnaire designed to measure the following variables:

(1) Digital ecosystem adoption (e.g., use of digital platforms and financial technology in MSME activities),
(2) Financial literacy,
(3) Knowledge of deposit insurance, particularly awareness of the Indonesia Deposit Insurance Corporation (LPS),
(4) Trust and self effication in financial institutions, including both formal banking institutions and LPDs, and
(5) Financial behavior and perceived financial system stability.

The data were analyzed using Structural Equation Modeling (SEM) with the assistance of IBM SPSS AMOS to examine the direct and indirect relationships among variables. In this model, financial literacy and knowledge of deposit insurance are treated as independent variables, trust is modeled as a mediating variable, while financial behavior and perceived financial system stability are treated as dependent variables. The digital ecosystem is incorporated as an exogenous variable influencing MSME behavior and financial decision-making.

The respondent criteria are as follows:

1. Micro, Small, and Medium Enterprises (MSMEs) that have savings and deposits in Village Credit Institutions (LPD);
2. Respondents residing in Denpasar;
3. MSMEs that have been operating for more than one year

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RESULT AND DISCUSSION

The Role of LPD in a Socio-Cultural Financial System

This study examines the relationships between financial literacy, knowledge of deposit insurance, and trust in formal banking institutions within a dual financial system context in Bali, Indonesia. Using survey data from 280 respondents, the study analyzes how understanding of the deposit insurance scheme and the Indonesia Deposit Insurance Corporation (LPS) influences individuals' confidence and saving behavior. The findings indicate that public knowledge of deposit insurance (76.43%) and institutional awareness of LPS (72.50%) are relatively high, although national financial literacy remains moderate (49.68%). Despite this, respondents generally demonstrate strong confidence in selecting formal banking institutions.

The study further highlights the significant role of local financial institutions, particularly Lembaga Perkreditan Desa (LPDs), which are deeply embedded in the socio-cultural structure of Balinese traditional villages (*desa adat*). With approximately 1,439 LPD units operating across Bali—most of which are not covered by deposit insurance—there exists a structural gap in financial protection. This gap is shaped not only by institutional factors but also by socio-cultural values, including *desa kala patra* and the *Tri Hita Karana* philosophy (Suryawan, Sutajaya, et al., 2022).

Employing a conceptual framework in which trust mediates the relationship between financial literacy and saving behavior, and where local institutions and socio-cultural factors act as moderators, this study contributes to the literature in three ways. First, it provides empirical evidence linking financial literacy and deposit insurance knowledge to trust and financial decision-making (Forbes, 2005). Second, it integrates local financial institutions into the analysis of financial system stability. Third, it introduces a socio-cultural perspective to explain how local values influence institutional trust and policy effectiveness.

The findings suggest that enhancing the effectiveness of deposit insurance policies requires not only improving financial literacy but also adopting culturally grounded approaches that engage traditional village institutions. This study offers important implications for policymakers seeking to strengthen financial inclusion and trust in regions characterized by hybrid financial systems and business owner self effication.

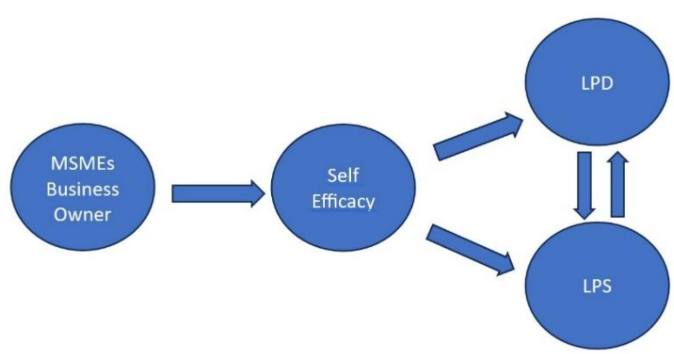

Figure 2. Factors that affect MSME business owners in deciding their confidence to save or borrow their funds at LPD. The participation of LPD in LPS will also be a consideration for MSME business owners.

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Vol.6, No.4, September 2026
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Based on the diagram above, self-efficacy can be understood as a mediating variable between MSME business owners and their decisions to engage with LPD. The level of self-efficacy influences their confidence in utilizing financial services, both for saving and borrowing. Furthermore, these decisions are shaped not only by perceptions of LPD as a local financial institution, but also by the presence of LPS as a deposit insurance agency that enhances security and trust. Therefore, the relationship between LPD and LPS becomes an important factor that indirectly influences MSME financial decisions through the strengthening of self-efficacy (Forbes, 2005)

This study strengthens the theoretical contribution that high business owner self-efficacy will significantly encourage digital literacy of LPD to have LPS. Without strong self-efficacy from business owner, the relationship between LPD and LPS will be insignificant.

Resilience in the Digital Financial Ecosystem of MSMEs and LPDs

In addition to trust, financial literacy, and institutional integration, this study highlights the importance of resilience as a critical dimension in sustaining MSME activities and local financial institutions within a dynamic digital environment. Resilience, in this context, refers to the capacity of MSME business owners and LPD institutions to adapt, respond, and recover from economic uncertainties, financial risks, and technological disruptions.

The findings suggest that the digital ecosystem plays a dual role in shaping resilience. On the one hand, digital platforms enhance flexibility and market access, enabling MSMEs to maintain operations despite external shocks. On the other hand, the uneven level of digital literacy and institutional readiness may create vulnerabilities, particularly among smaller enterprises and traditional financial institutions such as LPDs.

From an institutional perspective, LPDs demonstrate a form of embedded socio-cultural resilience, which is rooted in strong community trust, customary law (*awig-awig*), and collective values such as *Tri Hita Karana*. These elements enable LPDs to maintain stability even in the absence of formal financial protection mechanisms. However, this resilience remains structurally limited when facing systemic financial risks, particularly due to the lack of integration with formal safety nets such as the Indonesia Deposit Insurance Corporation (LPS).

Furthermore, resilience is closely linked to business owner self-efficacy, as highlighted in the social cognitive framework. MSME owners with higher self-efficacy are more likely to adopt digital technologies, engage with financial institutions, and make informed financial decisions, thereby strengthening their adaptive capacity. This aligns with the argument that resilience is not only an institutional attribute but also a behavioral and cognitive capability.

The integration of LPDs into the LPS system can therefore be seen as a strategy to enhance systemic resilience, combining local adaptive strengths with formal financial protection. This hybrid model—linking digital ecosystems, socio-cultural institutions, and national financial safeguards—can create a more robust and shock-resistant financial environment for MSMEs.

This finding is consistent with previous studies emphasizing the importance of digital resilience and financial system stability, which argue that the interaction between technology adoption, institutional trust, and regulatory frameworks plays a crucial role in navigating uncertainty in emerging economies.

https://doi.org/10.53625/jirk.v6i4.13184

CONCLUSION

This study highlights the important role of financial literacy and institutional knowledge in shaping public trust and saving behaviour within a dual financial system context in Bali, particularly in Denpasar. The findings demonstrate that a higher level of understanding of deposit insurance and the Indonesia Deposit Insurance Corporation (LPS) significantly contributes to increased public confidence in financial institutions.

At the same time, Village Credit Institutions (LPD) remain a vital component of the local financial system due to their strong socio-cultural foundations and accessibility for MSMEs. However, the absence of comprehensive deposit insurance coverage for many LPDs creates a structural gap in financial protection, potentially affecting long-term financial stability and depositor security.

This study confirms that trust plays a mediating role between financial literacy and saving behavior, while local institutional and cultural factors influence the effectiveness of financial policies. Therefore, strengthening financial system stability requires not only improving financial literacy and public awareness but also expanding deposit insurance coverage to include local financial institutions such as LPDs.

In conclusion, integrating LPDs into the LPS framework is essential to enhance depositor protection, strengthen public trust, and support a more inclusive and stable financial system, particularly in regions characterized by strong community-based financial structures. Moreover, strengthening resilience—both at the individual level through business owner self-efficacy and at the institutional level through the integration of LPDs into formal financial protection systems—is essential to ensure long-term financial stability and sustainability

Policy Recommendations

Based on the findings, several policy recommendations are proposed to enhance the effectiveness of deposit insurance communication and financial inclusion in Bali's dual financial system.

First, financial communication strategies should be adapted to local characteristics. Balinese communities tend to receive financial information in a relational (trust-based), contextual (culturally influenced), and gradual (experience-based) manner. Therefore, communication regarding deposit insurance (LPS) should integrate formal dissemination with local wisdom and culturally embedded approaches.

Second, financial literacy levels—including understanding of LPS—vary significantly across social groups such as students, business owner, tourism workers, and rural communities. These differences are shaped by disparities in access to information, economic experience, education, and socio-cultural context. Targeted and segmented literacy programs are therefore necessary.

Third, considering the large number of financial institutions in Bali, including commercial banks, rural banks (BPR/BPRS), and LPDs, the establishment of a regional representative office of LPS in Bali is recommended to strengthen supervision, outreach, and institutional coordination.

 ISSN 2798-3471 (Cetak)
ISSN 2798-3641 (Online)

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Journal of Innovation Research and Knowledge
Vol.6, No.4, September 2026
https://doi.org/10.53625/jirk.v6i4.13184

Fourth, effective communication in Bali requires a multi-channel approach that combines formal, social, and cultural pathways. Community-based structures such as *banjar* and *desa adat*, along with traditional leaders (e.g., *bendesa adat* and *pemangku*), play a crucial role as trusted intermediaries. Institutions such as the *Majelis Desa Adat Bali* can serve as strategic partners due to their high level of social legitimacy. Policy outreach should therefore involve direct engagement through community meetings (*paruman*), the use of local language, and the inclusion of respected local figures as message conveyors.

Fifth, LPS should promote collaborative partnerships with universities, local communities, business actors, and key opinion leaders to strengthen public financial literacy. Rather than relying on one-way socialization, these efforts should evolve into an inclusive educational ecosystem, where LPS acts as a content authority, while partners function as communication channels and amplifiers.

Conflict of Interest
The author(s) declare that there is no conflict of interest regarding the publication of this study
Funding Statement
This research received no external funding and was fully supported by the author(s)

Author Contributions
Adrid Indaryanto: Conceptualization, Data Collection, Writing – Original Draft, Writing – Review & Editing.
Dadang Hermawan: Data Collection, Writing – Original Draft, Writing – Review & Editing.
Ismoyo S. Soemarlan: Writing – Review & Editing.
Karina Putri Alamanda: Writing – Psychological Review & Editing.
Abu Siri: Writing – Review & Editing.

Author Acknowledgement
The authors would like to express their sincere gratitude to all respondents for their participation, as well as to all individuals and institutions who contributed to the successful completion of this research.

Data Availability
The data that support the findings of this study are available from the corresponding author upon reasonable request.

Declaration of generative AI and AI-assisted technologies in the manuscript preparation process.
During the preparation of this work the authors used ChatGPT (Open AI, GPT-5.3) in order to edit/translate the language. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

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