

Original Article

Bridging Regulation and Internal Capability: The Mediating Role of the Loan Management System in Enhancing Banking Business Performance in West Java

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Abstract: This study aims to analyze the effects of the regulatory environment and the internal environment on business performance, both directly and indirectly through the Loan Management System (LMS) as a mediating variable, at BJB Bank Branch Offices in West Java Province. The study employed a quantitative approach with an explanatory research design. The population, which also constituted the research sample, consisted of 45 active Branch Office Heads with experience in business functions, lending, operations, risk management, compliance, internal control, and LMS implementation. Data were collected through a Likert-scale questionnaire and analysed using Partial Least Squares–Structural Equation Modeling (PLS-SEM). The results indicate that the regulatory environment does not have a statistically significant direct effect on business performance, whereas the internal environment has a positive and significant effect on business performance. Both the regulatory environment and the internal environment have positive and significant effects on the LMS, while the LMS exerts the strongest positive and significant effect on business performance. The LMS is also proven to significantly mediate the effects of both the regulatory environment and the internal environment on business performance. These findings confirm that improving business performance depends not only on regulatory requirements and internal capabilities, but more importantly on the bank's ability to translate both into effective, integrated, and well-controlled practices through the LMS. The novelty of this study lies in positioning the LMS as a specific mediating mechanism in credit management at the branch-office level.

Keywords: Regulatory Environment, Internal Environment, Loan Management System, Business Performance.

I. INTRODUCTION

Banking is an industry that is highly influenced by regulatory changes, the quality of the internal environment, and banks' ability to manage lending processes through technology. In this context, business performance should not be understood solely in terms of profit growth, but should also encompass asset quality, efficiency, profitability, credit growth, and the bank's ability to maintain risk at a prudent level. The last five years of research show that bank performance is now based on the marshalling of external environmental attributes, internal capabilities and digital transformation (Abdurrahman et al., 2024; Nasim et al., 2020; Wu & Cheng, 2023). According to the latest data from the Financial Services Authority (Otoritas Jasa Keuangan [OJK]), performance of the Indonesian banking industry has remained robust as of June 2026. Bank lending rose 12.67% YoY to around IDR 9,081 trillion, while third-party funds increased by 10.21% to around IDR 10,282 trillion. Meanwhile, credit quality was also preserved with a gross non-performing loan (NPL) ratio of 2.09%, a net NPL ratio of 0.82% and Loan at Risk (LaR) standing at 8.47%. In the meantime, the industry had a Return on Assets (ROA) of 2.47% and a Capital Adequacy Ratio (CAR) of 23.70%, for example (OJK, 2026) in this period.

Table 1: National Banking Indicators, June 2026

Credit Growth	12.67% YoY
Total Credit	IDR 9,081 trillion
Third-Party Funds (TPF) Growth	10.21% YoY
Gross NPL	2.09%
Net NPL	0.82%
Loan-at-Risk	8.47%
ROA	2.47%
CAR	23.70%

Resources: OJK, 2026

Yet the relative health of the banking industry is not uniformly reflected in all banks. For example, bank BJB as of June 2026 was recorded to have total assets of around IDR 228.2 trillion, loans of approximately IDR 140.4 trillion, third-party



funds amounting to IDR 160.9 trillion, net profit of around IDR 783 billion with a Capital Adequacy Ratio (CAR) reaching 20.1%, Return on Equity (ROE) at the level of 104.% and a non-performing loan (NPL) ratio reaching 3.33%. This NPL number was around 1.24 percentage points greater than the national average of 2.09% (OJK & Bank BJB, 2026). This differential suggests that some of the gains in profitability or capital adequacy might have come at a cost to asset quality.



Figure 1. Comparison of Gross NPL, June 2026

Source: OJK & Bank BJB West Java, 2026.

This phenomenon demonstrates that bank business performance is multidimensional. A bank may record improvements in profitability or efficiency in the short term while simultaneously experiencing pressure on credit quality. In this study, the issue of business performance is specifically situated within Bank BJB in West Java Province, particularly at Branch Offices (BOs) that conduct lending activities. The research problem is therefore not limited to the magnitude of profits, but also concerns the ability of bank operating units to maintain a balance among profitability, credit growth, operational efficiency, and asset quality.

The regulatory environment is one of the assumed influential factors in business performance. Governance, risk management and compliance measures within banks, among others, require banking regulations to increasingly strengthen, which continues to increase. Seyedjafarrangraz et al. (2024) find that the evolution of the regulatory environment is closely related to technology-based innovation and digital banking development. Nasim et al. This conclusion is also held by Wang et al. (2026), who find that both regulatory and economic environments influence banking efficiency, although the effects vary based on country and institutional characteristics. For the case of Bank BJB in West Java Province, Bank Indonesia regulatory policy should be translated internally with consistent implementation at the Branch Office level to support a lending process that is efficient and of good asset quality.

Another factor is the internal environment; the internal environment includes the quality of human resources, risk culture, management support, organizational structure, quality of control systems, inter-functional coordination, digital readiness, and data quality. Abdurrahman et al. (2024) explain that in the context of digital transformation and innovation in the Indonesian banking industry, these four capabilities technological, organisational, ecosystem and governance-risk-compliance are important. These results suggest that internal resources alone do not enhance performance and note the necessity of translating them into effective processes/systems. This greatly relates to the bank BJB Branch offices in West Java Province since policy implementation, quality of employee competence level, work coordination and technological readiness at the operational-unit level greatly affect lending success.

In this background, the Loan Management System (LMS) becomes a significant aspect. LMS does not simply act as a tool for credit administration, but can also connect the entire lending process, including application, analysis, approval, documentation, disbursement, monitoring and even loan resolution. An effective LMS turns regulatory obligations and internal policies into workflows, authority structures, document controls, credit monitoring, and early warning systems. In this study, the LMS is viewed as a mechanism that can connect the regulatory environment and internal environment with business performance at bank BJB Branch Offices in West Java Province.

Studies on digital transformation support this argument. Wu and Cheng (2024) find that digital transformation is positively associated with banks' financial performance, while regional policies that support digitalization can strengthen this relationship. Abdurrahman et al. (2024) also show that digital transformation can serve as a mechanism through which technological, organizational, and governance-risk-compliance capabilities are translated into improvements in innovation and banking performance. The effectiveness of digital systems in the lending process is therefore relevant for explaining how internal resources and regulatory requirements can be converted into business performance at bank operating units.

Nevertheless, an important research gap remains. Earlier literature on regulation has largely been centered on the direct

impact of regulations on bank efficiency, stability, or performance. Nasim et al. (2026) illustrate that these aspects of the regulatory environment influence bank efficiency, and Nguyen and Nguyen (2024) emphasize that Basel III implementation in parallel with digital transformation impacts credit-risk control. On the internal side, Bianchi et al. demonstrate that the link between strong risk culture and performance is not always significant, while Baugh et al. (2021) demonstrate that internal control quality affects bank risk-taking and performance. However, the research has not explicitly described how both the regulatory environment and the internal environment translate through an LMS for the performance of many banks in West Java Province, including Bank BJB Branch Office.

This research gap becomes more relevant, especially when empirically combined with the actual situation of Bank BJB. Bank BJB's NPL ratio was higher than the banking industry average at 3.33% as of Jun 2026, compared with 2.09%. This condition indicates that capital adequacy, the existence of regulations, and the availability of internal resources do not necessarily and automatically result in optimal credit quality and business performance. In this study, the phenomenon is further narrowed to the operational environment of bank BJB in West Java Province, particularly Branch Offices that serve as the primary units for implementing the lending process and directly interacting with the LMS. Yang and Masron (2024) show that digital transformation can reduce credit risk by improving information quality, while Zhang et al. (2023) find that the application of technology and digital risk control can reduce bank credit risk. Accordingly, the effectiveness of credit-management processes and systems at the operating-unit level is important for explaining the quality of business performance.

On this basis, this study positions the regulatory environment and internal environment as factors that may influence business performance both directly and indirectly through the LMS. This approach is consistent with Abdurrahman et al. (2023), demonstrating how technological, organizational and environmental capabilities must go through digital transformation processes to enhance innovation and banking performance. Chen et al. (2023) also highlight the impact of digital transformation on bank risk-taking, which appears heterogeneous since its effects differ by banks. This research placed the LMS not only as a technological tool, but also as an organizational mechanism that organize credit policies, controls, data, authority monitoring of custom behavior and functions of risk management at bank BJB Branch Offices in West Java Province.

Studies on relationships among technology, control systems and bank performance further support that the LMS is a useful mediator [75, 76]. Evidence on the effect of digital transformation on banks' financial performance has been provided by Wu and Cheng (2024), who find that digital transformation enhances banks' performance and such positive impact is strengthened in a supportive policy context. Accordingly, Koutoupis and Malisiovas (2023) found that the effectiveness of their internal control systems correlates with credit risk, profitability, and bank compliance. Results show that while regulation and internal capabilities are necessary conditions for better business outcomes, they are not sufficient without an effective implementation mechanism. While previous research has mainly used broader constructs such as digital transformation or organizational capability, this study contributes novelty by measuring short-listed kilograms LMS as a more specific mediating mechanism in the lending process at Bank BJB Branch Offices in West Java Province.

In summary, the research problem in this study is still very low business performance in credit management at the BJB Bank West Java Province branch offices, as seen from the ever-existing pressure on improved credit quality compared to the health condition of national banking industry. This situation suggests a misalignment among regulatory expectations, internal readiness, LMS execution effectiveness, and results at the operating-unit level. Nguyen and Nguyen (2024) find that credit risk is influenced by digitalization and prudential regulation, whilst Yang and Masron (2024) argue that the desirability of the risk-reducing effects of these positive effects on risk depends on the efficiency of implementation mechanisms for these processes. Accordingly, this study seeks to determine whether the regulatory environment and internal environment are capable of improving the business performance of bank BJB Branch Offices in West Java Province directly or indirectly through the LMS.

II. LITERATURE REVIEW

A) *Relationship between the Regulatory Environment and Business Performance*

Nasim et al. (2026) found that regulatory conditions affect bank efficiency and performance. Seelanatha and Natoli (2025) emphasized that regulation also determines cost efficiency and technological gaps. Wang and Luo (2025) likewise demonstrated that regulatory quality and legal governance contribute positively to banking efficiency.

Furthermore, He et al. (2023) found that prudential regulation increases profitability and reduces NPLs. Gržeta et al. (2023) showed that the impact of regulation on performance differs according to bank characteristics. These findings confirm that the regulatory environment can improve business performance, although its effectiveness depends on the bank's ability to implement regulatory requirements through adequate operational processes and systems.

Hypothesis 1: The Regulatory Environment Affects Business Performance.

B) Relationship between the Internal Environment and Business Performance

Abdurrahman et al. (2024) argue that dynamic capabilities, governance, risk management and compliance affect digital transformation and the performance of the Indonesian banking industry. According to Koutoupis and Malisiovas (2023), internal control systems influence bank risk, profitability and compliance. Imran et al. Wu et al. (2022) provide evidence that organizational culture and innovation have positive effects on organizational performance in a banking context.

Bianchi et al. (2021) argue that an effective risk culture enhances bank performance, while Baugh et al. (2021) showed that strong internal control quality reduces adverse risk exposure and improves performance. These findings highlight the relevance of a strong internal environment to enable bank business performance.

Hypothesis 2: The Internal Environment Affects Business Performance.

C) Relationship between the Regulatory Environment and the Loan Management System

Charoenwong et al. (2024) found that regulatory control requirements promote investment in technology and information systems. Khan et al. (2023) showed that the regulatory environment, through regulatory sandboxes, influences banks' adoption of financial technology. Washington et al. (2022) show, too, that regulatory sandboxes stimulate digital innovation even where they necessitate higher compliance costs.

Consistent with these results, Nguyen and Nguyen (2024) found that regulators' commitment to enforce Basel III, combined with the ICT-driven corporate transformation, has impacts on credit risk management. Regulator–innovator interactions in regulatory sandboxes are more effective at increasing a firm's ability to translate regulatory requirements into operational systems and procedures (Fahy, 2022). These results further reinforce the argument that the regulatory environment can affect the performance of the Loan Management System in terms of compliance, technology and other control mechanisms so as to standardize those concerned lending operations.

Hypothesis 3: The Regulatory Environment Affects the Loan Management System.

D) Relationship between the Internal Environment and the Loan Management System

Zhen et al. (2021) found that digital culture and organizational capabilities make readiness to implement technology. Baravelli and Pilotti (2022) provided evidence that banking sector dynamic capabilities are supported by organizational structure, competencies and employee empowerment. Similarly, a recent 2023 study of the role of internal auditing in commercial banks indicated that overall, internal controls are essential for credit policy implementation and credit risk management. The results of our study showed that the internal environment acts as a precondition for credit management systems to be effective.

In addition, Michelotto and Joia (2024) explained that the dimensions of digital transformation readiness comprise managerial capability, human resources, organizational culture, business processes and technological resources. Kaur (2025) indicated that the digitalization of credit management is capable of speeding up the decision-making process, enhancing workflow efficiency, strengthening data analysis and boosting risk control. Synthesis of these five studies these five studies provide evidence supporting the proposition that a positive internal context enhances the successful enactment of the LMS based on technological readiness, employee competence, internal controls, organizational structure and credit-process integration.

Hypothesis 4: The Internal Environment Affects the Loan Management System.

E) Relationship between the Loan Management System and Business Performance

In the study conducted by Saxena and Rastogi (2026), it was found that AI-based loan management systems speed up approval processes, improve accuracy and strengthen risk management. Manyama et al. (2026) state that the connection between credit referencing, underwriting, and credit recovery contributes to lower NPLs. Ally et al. (2025) showed that FinTech enhances credit risk management and the efficiency of banks, while Barasa et al. (2025) did the same. Digital analytics technologies are also more accurate than traditional methods for predicting default.

Nshabire et al. (2025) found that the customer assessment and credit tracking function accordingly, increasing loan performance. According to Alamro (2025), credit risk management positively impacts both ROA and ROE, suggesting the implementation of FinTech for an enhanced optimal lending process. According to Ramzaeva and Kravchenko (2022), efficient management of the credit portfolio makes it possible to increase the efficiency of any banking institution. In sum, these findings corroborate a positive association between the LMS and business performance mediated by shorter processes, superior quality of credit decisions, better monitoring with less risk and other efficiency/ profitability gains.

Hypothesis 5: The Loan Management System Affects Business Performance.

F) The Loan Management System as a Mediator of the Relationship between the Regulatory Environment and Internal Environment and Business Performance

Salem et al. (2026) found that regulatory support, risk analytics capabilities, and digital leadership enhance bank performance through the mediation of FinTech adoption. Petre et al. (2026) explained that governance and regulatory coordination allow digital innovation to produce organizational performance. Joenoes et al. (2025) described this feature in depth: the digitalization of lending processes leads to regulatory adaptation, which is also equivalent to an increase in efficiency, risk assessment and lower defaults. Finding consistency with Zefanya (2025), this study also finds support for the notion that digital lending regulation has a positive effect on credit accessibility and operational efficiency.

Jonnardi et al. (2025) find that digital capabilities weaken the negative effect of credit risk on profitability. Su (2025): Internal process transformation, credit evaluation systems, and digital risk management increase financing efficiency. Digitalisation enhances banks' efficiency to respond to business cycles of monetary policy pressure. Enebeli-Uzor and Mukhtar (2024) and our seven studies show that, overall, the LMS serves as a mediating mechanism: the regulatory environment provides rules and institutional endowments; the internal environment supplies capabilities, and digital credit systems operationalise both into efficiency, risk control and credit quality, culminating in better business performance.

Hypothesis 6: The Loan Management System Mediates the Effect of the Regulatory Environment on Business Performance.

Hypothesis 7: The Loan Management System Mediates the Effect of the Internal Environment on Business Performance.

Based on the research problem and the theoretical review presented above, the research model is illustrated in the following research paradigm.

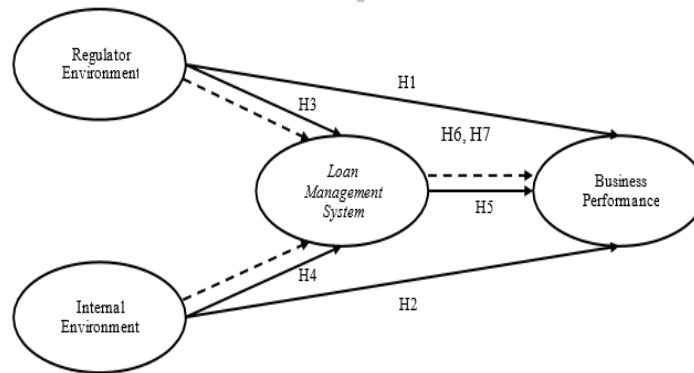


Figure 2. Research Paradigm

G) Research Method

This study employed a quantitative approach with an explanatory research design to examine the effects of the regulatory environment and the internal environment on business performance, both directly and indirectly through the Loan Management System (LMS) as a mediating variable. A quantitative approach was selected because the relationships among variables were represented by measurable constructs and statistically tested using a structural model (Hair et al., 2022). The measures used in the research instrument are presented in the following table.

Table 2: Operational Variable

Variable	Dimention	Indicator
Regulator Environment (S. Katuu, T. van der Walt, 2016; C. Cordova Novion & D. Hanlon, 2002; Colin Kirkpatrick, 2014))	Regulator Impact	(RE-RT) Regulasi Tipibank (UU No. 4/2023 juncto UU No. 10/1998) (RE-RTP) Regulasi Tipikor (UU No. 31/1999) (RE-PO) OJK Regulation
	Law Enforcement	(RE-CS) <i>Crime Settlement</i> (RE-PS) <i>Private Settlement</i> (RE-PWO) OJK Supervision
Internal Environment (Dess, et Al (2014) Daft & Marcic (2014) Riyanto (2018))	Staff Capability	(RI-KS) Staff Competence (RI-KNS) Number of Staff
	Competitiveness	(RI-KSP) Specific Credit (RI-KU) General Credit

	System Capacity	• (RI-TI) Information Technology • (RI-SDP) Supporting Resources
Loan Management System (A Ajuwon, et. al, 2020; Akhil Sahota Jaypee, 2015)	Automation of Process	• (LMS-EP) <i>Ease of Process</i> • (LMS-BM) <i>Blockchain Method</i> • (LMS-UI) <i>Updated Information</i>
	Credit Assesment	• (LMS-CRE) <i>Credit Risk Evaluation</i> • (LMS-LCR) <i>Legal & Compliance Risk</i> • (LMS-CRR) <i>Credit Risk Rating</i>
Business Performance (Koch & Macdonald, 2015; Wheelen dan Hunger, 2018; Saunders & Cornett, 2014; Firdausi 2019))	Financial Performance	• (BP-NP) <i>Nett Profit (Gross Profit – Tax)</i> • (BP-PA) <i>Productivity Asset</i> • (BP-ROA) <i>Return on Asset</i>
	Non-Financial Performance	• (BP-CME) <i>Contribution Margin of Employee</i> • (BP-CP) <i>Customer Perspective</i> • (BP-LGP) <i>Learning & Growth Perspective</i>

The study was conducted at bank BJB Branch Offices (BOs) in West Java Province that conduct lending activities and utilize the LMS. The population and sample consisted of 45 active heads of bank BJB Branch Offices in West Java Province who met the research criteria, namely having held positions or performed functions related to business lending, credit analysis, credit operations, risk management, compliance, internal control, or other functions directly associated with LMS implementation. Primary data were collected through a structured questionnaire using a Likert scale to obtain quantitative measurements of respondents' perceptions of the regulatory environment, internal environment, LMS, and business performance.

The use of PLS-SEM was appropriate for the objectives of this study because the method enables the analysis of relationships among latent constructs, the examination of both direct and indirect effects, and the simultaneous testing of mediation effects (Hair & Alamer, 2022; Hair et al., 2022). The measurement model (outer model) was evaluated by testing construct validity and reliability constructs, while the structural model (inner model) was assessed using the coefficient of determination (R²), predictive relevance Q², Goodness of Fit (GoF), and the significance of relationships among constructs. Mediation was tested based on the bootstrapping procedure regarding the indirect effects, as recommended by recent advances in PLS-SEM for establishing mediation effect significance (Hair et al., 2022).

III. RESULTS AND DISCUSSION

This section presents the research findings through descriptive and inferential statistical analyses, including hypothesis testing to examine the relationships among the study variables. In addition, respondent characteristics are presented to provide an overview of the profiles of bank BJB Branch Office heads in West Java Province who participated in the study. The characteristics of the respondents are presented in the following table.

Table 3: Respondent Demographics

Characteristic	Category	Frequency	Percentage
Gender	Male	39	86.67%
	Female	6	13.33%
Age	31–40 years	17	37.78%
	41–50 years	25	55.56%
	Above 50 years	3	6.67%
Education	Bachelor's Degree	37	82.22%
	Master's Degree	8	17.78%
	Doctoral Degree	0	0.00%
Length of Tenure	< 3 years	20	44.44%
	3–5 years	19	42.22%
	> 5 years	6	13.33%

The demographic data of respondents from ten leaders of bank BJB Branch Offices in West Java Province showed that the majority belong to the age group of 41-50 years, with 25 respondents (55.56%), followed by 31-40 years with 17 respondents (37.78%), and more than 50 years with three respondents (6.67%). For educational attainment, most had a bachelor's degree (37 respondents or 82.22%) versus a master's degree (8 respondents or 17.78%). In terms of length of service, 20 respondents (44.44%) served for less than 3 years, while 19 respondents (42.22%) had tenure between 3–5 years and only six (13.33%) for more than five years; this breakdown suggests that most respondents had more mature managerial careers in

terms of age, education, and leadership experience. Branch Office heads, by virtue of these characteristics, were more experienced in the organization and were familiar with regulatory dynamics, internal policies, lending processes/ risk management and also with the Loan Management System, which supported branch operations. But the fact that more than half of respondents were less than five years into their tenure also suggests that most branch heads were still coalescing their leadership experience. Consequently, the level of maturity in translating regulatory requirements and bank policies into operational decisions may differ across branch managers.

These conditions are relevant to the research problem because the effectiveness of the regulatory environment, internal environment, and LMS depends not only on the existence of rules or systems, but also on the maturity of Branch Office heads in carrying out their leadership responsibilities. As branch leaders, respondents are responsible for ensuring that the achievement of business targets remains balanced with credit quality, compliance, risk control, process effectiveness, and consistent utilization of the LMS. Given that Bank BJB's NPL ratio remains higher than the industry average, the issue of business performance may be understood not merely as a technological or policy-related problem, but also as a matter of managerial capability in translating regulatory requirements and internal capabilities into disciplined credit management practices.

A) Outer Model Results

Based on the hypothesized relationships among the variables, the results of the Outer Model analysis using PLS-SEM are presented as follows:

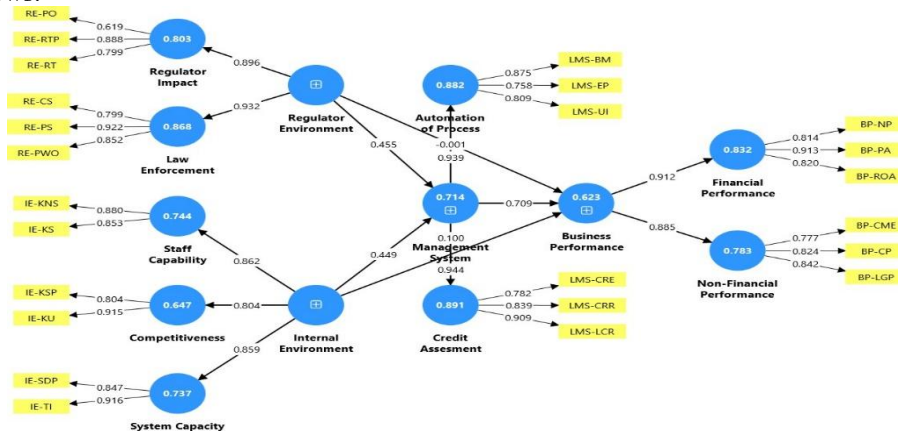


Figure 3. Research Outer Model

The outer model results indicate that all factor loadings for the indicators of each variable dimension are above 0.500. Therefore, all indicators can be considered valid (Hair et al., 2022).

B) Discriminant Validity

All Average Variance Extracted (AVE) values in this study are above 0.500 (Hair et al., 2022), indicating that all latent variables are able to adequately represent their respective measured indicators.

Table 3: Results of the Average Variance Extracted (AVE) Test

Latent Variable	AVE	Threshold	Interpretation
X ₁ : Regulator Environment	0.563	0,500	Valid
X ₂ : Internal Environment	0.533	0,500	Valid
Z : Loan Management System	0.609	0,500	Valid
Y : Business Performance	0.559	0,500	Valid

C) Composite Reliability Test

Based on the analysis results, all Composite Reliability values exceed 0.700, as presented below.

Table 4: Composite Reliability Values

Latent Variable	Composite Reliability	Threshold	Interpretation
X ₁ : Regulator Environment	0.855	0,700	Reliable
X ₂ : Internal Environment	0.833	0,700	Reliable
Z : Loan Management System	0.877	0,700	Reliable
Y : Business Performance	0.846	0,700	Reliable

D) Cronbach's Alpha

The Cronbach's Alpha values for all variables are above 0.700, as shown in the following table.

Table 5: Cronbach's Alpha Values

Latent Variable	Cronbach's Alpha	Threshold	Interpretation
X ₁ : Regulator Environment	0.838	0,700	Reliable
X ₂ : Internal Environment	0.818	0,700	Reliable
Z : Loan Management System	0.871	0,700	Reliable
Y : Business Performance	0.842	0,700	Reliable

E) Multicollinearity Test

According to Hair et al. (2022), multicollinearity among variables can be assessed using the Variance Inflation Factor (VIF), with values below 5.000 indicating the absence of problematic multicollinearity. The table below shows that all relationships among the variables have VIF values below the threshold, indicating that the model is free from multicollinearity problems.

Table 6: Multicollinearity Test Results

Inner VIF Values	VIF
Internal Environment -> Business Performance	2.982
Internal Environment -> Loan Management System	2.278
Loan Management System -> Business Performance	3.500
Regulator Environment -> Business Performance	3.002
Regulator Environment -> Loan Management System	2.278

F) Inner Model Results

The structural model was evaluated using the Coefficient of Determination (R^2), the Goodness of Fit test, and hypothesis testing through direct and indirect effects, as follows.

Coefficient of Determination (R^2)

The following (R^2) values were obtained from the data analysis using SmartPLS 4.0.

Table 7: R-Square Test Results

Latent Variable	R-square	R-square Adjusted
Y : Business Performance	0.623	0.595
Z : Loan Management System	0.714	0.701

The combined effect of the Regulatory Environment, Internal Environment, and Loan Management System on Business Performance is reflected in an (R^2) value of 0.623, indicating a relatively strong explanatory power. Meanwhile, the combined effect of the Regulatory Environment and Internal Environment on the Loan Management System is reflected in an (R^2) value of 0.714.

G) Predictive Relevance Test (Q^2)

The Q-Square value was calculated as follows:

$$Q^2 = 1 - [(1 - R^2_1) \times (1 - R^2_2)]$$

$$Q^2 = 1 - [(1 - 0,623) \times (1 - 0,714)]$$

$$Q^2 = 0,892$$

Based on the calculation, the (Q^2) value was 0.892, or 89.2%. This result indicates that the research model has strong predictive relevance.

H) Goodness of Fit Model (GoF)

The GoF value in PLS-SEM was calculated manually using the following formula.

$$GoF = \sqrt{AVE \times R^2}$$

$$GoF = \sqrt{\left(\frac{0,563 + 0,533 + 0,609 + 0,559}{4} \right) \times \left(\frac{0,623 + 0,714}{2} \right)}$$

$$GoF = 0,615$$

Based on the GoF calculation, a value of 0.615 was obtained. This value indicates a large GoF, suggesting that the overall model demonstrates a good level of fit and is appropriate for further hypothesis testing.

1) Hypothesis Testing

Hypothesis testing was conducted using the path coefficient bootstrapping procedure.

a. Direct Effects

The results of the direct-effect tests are presented below.

Table 8: Hypothesis Testing Results for Direct Effects

Path Coefficient	Hypo-thesis	Effect Size	T statistics (O/STDEV)	T Table	P Values
Regulator_Environment -> Business Performance	H1	0.321	1.833	1,967	0.067
Internal_Environment -> Business Performance	H2	0.418	2.310	1,967	0.021
Regulator_Environment -> Loan Management System	H3	0.455	2.996	1,967	0.003
Internal_Environment -> Loan Management System	H4	0.449	2.908	1,967	0.004
Loan_Management_System -> Business Performance	H5	0.709	4.762	1,967	0.000

Referring to Table 8 for the direct-effect test result, it shows that the Regulatory Environment has no significant effect on Business Performance because of a path coefficient amounting to 0.321, t-statistic = 1.833 .05. Therefore, H1 is rejected. Meanwhile, the Internal Environment affects Business Performance positively and significantly, with an effect of 0.418 t-statistic value of 2.310 and p-value equal to 0.021. Thus, H2 is accepted. These results suggest that enhancing the quality of resources, improving staff competencies and support systems, and developing internal capabilities is more effective at creating a direct impact on business performance than regulatory pressures or requirements.

In addition, the Regulatory Environment and Internal Environment also have a positive and significant effect on Loan Management System (LMS), with coefficients of 0.455 and 0.449 and p-values of 0.003 and 0.004, respectively. Hence, we accept H3 and H4. Moreover, LMS has the most positive significant impact on Business Performance with a coefficient of 0.709 t-statistic of 4.762 and α p-value 0.000. Accordingly, H5 is accepted. This predisposition finding suggests that the utility of an LMS is a key driver in translating regulatory requirements and internal capability into better lending performance through efficient, robust, and seamless lending operations.

b. Indirect Effects

The results of the indirect-effect tests are presented below.

Table 9: Hypothesis Testing Results for Indirect Effects

Path Coefficient	Hipotesis	Besaran Pengaruh	T statistics (O/STDEV)	T Table	P Values
Regulator_Environment -> Loan_Management_System -> Business Performance	H6	0.323	2.465	1,967	0.014
Internal_Environment -> Loan_Management_System -> Business Performance	H7	0.318	2.309	1,967	0.021

Based on Table 9, the indirect-effect test results indicate that Regulatory Environment positively and significantly influences Business Performance through Loan Management System (LMS), as evidenced by the indirect effect's coefficient of 0.323, t-statistic of 2.465 > 1.967, and p-value of 0.014 < 0.05. Therefore, H6 is accepted. This result suggests that the comprehensibility of regulatory requirements in well-structured and integrated lending processes, control mechanisms, compliance procedures, and monitoring activities through the LMS is essential for their influence on business performance.

Furthermore, the Internal Environment also has a positive and significant effect on Business Performance through the LMS, with an indirect-effect coefficient of 0.318, a t-statistic of 2.309 > 1.967, and a p-value of 0.021 < 0.05. Therefore, H7 is accepted. This finding indicates that human resource competence, technological support, system capacity, and internal resources can improve business performance when they are effectively implemented through the LMS. Overall, these results

confirm that the LMS plays an important mediating role in linking both the Regulatory Environment and the Internal Environment to improved business performance at bank BJB Branch Offices.

c. Research Findings

The main findings of this study indicate that the Internal Environment and the Loan Management System (LMS) have positive and significant effects on Business Performance, whereas the Regulatory Environment does not have a statistically significant direct effect on Business Performance. However, both the Regulatory Environment and the Internal Environment have positive and significant effects on the LMS, which in turn has a strong positive effect on Business Performance. The indirect-effect analysis also demonstrates that the LMS significantly mediates the effects of both the Regulatory Environment and the Internal Environment on Business Performance. These findings confirm that improvements in branch-office business performance are not determined solely by the existence of regulatory requirements or internal resources, but depend substantially on the bank's ability to translate both into an effective, integrated, and well-controlled credit management system.

The novelty of this study lies in positioning the LMS as a specific mediating mechanism in the relationship between the Regulatory Environment, Internal Environment, and Business Performance at bank BJB Branch Offices in West Java Province. Unlike previous studies that have predominantly employed broader concepts such as digital transformation, technological capability, or banking digitalization, this study empirically demonstrates that regulatory requirements, which do not have a statistically significant direct effect on performance, become significant when translated through the LMS. Thus, the novelty of this study demonstrates that the LMS is not merely a technological instrument or a credit administration tool, but rather an organizational mechanism that bridges regulatory requirements and internal capabilities with improvements in business performance.

IV. CONCLUSION

Based on the findings of this study, it can be concluded that the Internal Environment and the Loan Management System (LMS) have positive and significant effects on Business Performance, whereas the Regulatory Environment does not have a statistically significant direct effect on Business Performance. Nevertheless, both the Regulatory Environment and the Internal Environment have positive and significant effects on the LMS, while the LMS exerts the strongest influence on Business Performance. In addition, the LMS is proven to mediate the effects of both the Regulatory Environment and the Internal Environment on Business Performance. Therefore, the effectiveness of credit management through the LMS constitutes an important mechanism for improving the performance of bank BJB Branch Offices in West Java Province.

Based on these findings, bank BJB is advised to strengthen the implementation and optimization of the LMS as a core component of its lending business processes, particularly through improved process integration, information quality, credit risk evaluation, compliance, monitoring, and credit control. The internal environment should also be strengthened through improvements in employee competence, resource adequacy, information technology support, work coordination, and consistency in the implementation of credit policies. Regulation should not merely be regarded as a compliance obligation; rather, regulatory requirements need to be operationally translated into features, procedures, and controls that are integrated into the LMS so that they can generate tangible improvements in business performance.

For future research, it is recommended to broaden the research scope by including branch offices in other regions or multiple banks in order to enhance the generalizability of the findings. Future studies may also incorporate additional variables, such as risk culture, leadership quality, digital capability, data quality, or the effectiveness of internal controls, and may employ longitudinal data and objective performance indicators such as NPL, ROA, credit growth, and operational efficiency. Such developments are expected to provide a more comprehensive understanding of the factors that strengthen the effectiveness of the LMS in improving banking business performance.

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