

THE INFLUENCE OF FINANCIAL LITERACY, LEGAL AWARENESS, BANKING SERVICE QUALITY, AND CREDIT ACCESSIBILITY ON MSMEs CUSTOMER SATISFACTION: A COMPARATIVE STUDY BETWEEN PRIVATE AND STATE-OWNED BANKS IN INDONESIA

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Abstract: *This study examines and compares how financial literacy, legal awareness, banking service quality, and credit accessibility influence micro, small, and medium enterprise (MSME) customer satisfaction between private and state-owned banks in Jakarta, Indonesia. Data were collected from 220 MSME borrowers (110 per bank type) through structured questionnaires and analyzed using multiple linear regression for each bank group, with explicit multicollinearity diagnostics applied before interpretation. The findings reveal that the dominant driver of satisfaction differs by ownership type: banking service quality is the primary lever in private banks, whereas credit accessibility is dominant in state-owned banks. Financial literacy and legal awareness, although positively associated with satisfaction, do not add independent explanatory power once service quality and credit accessibility are taken into account, and are therefore better understood as reinforcing conditions than as standalone drivers. Grounded jointly in the Theory of Planned Behavior, Social Exchange Theory, and Expectation Confirmation Theory, the study contributes new, ownership-differentiated evidence on MSME banking satisfaction in Indonesia. These findings imply that state-owned banks should prioritize streamlining their credit-application and documentation processes, while private banks should focus on delivering consistent service quality across branches; both should continue to support MSME customers' financial and legal literacy as complementary measures.*

Keywords: Banking Service Quality, Credit Accessibility, Customer Satisfaction, Financial Literacy, Legal Awareness, MSMEs

INTRODUCTION

The banking sector serves an important function in many countries around the world as the first source of business finance funding. The quality of service provided by banks has become a major component of evaluating the effectiveness of institutions ([Ifedi et al. 2024](#); [Parasuraman, Zeithaml, and Berry 1988](#); [Gonu](#)

[et al. 2023](#); [Redda 2023](#); [Islam et al. 2023](#)). In developing countries, the banking relationship extends beyond the transaction itself. The services MSMEs receive directly shape whether they can secure capital, understand agreement terms, and effectively utilize available financial products ([Hussain, Salia, and Karim 2018](#); [Lusardi and Mitchell 2014](#)). When banks fail to

provide adequate service, low customer satisfaction constrains the development of business segments they are intended to serve ([Supriyanto, Wiyono, and Burhanuddin 2021](#); [Kim, Jindabot, and Yeo 2024](#)).

Nowhere are these service-quality stakes higher than among micro, small, and medium enterprises (MSMEs), whose limited internal financial and legal capacity makes them disproportionately dependent on how well banks translate service quality into accessible, understandable credit. There are over 64.13 million registered micro, small, and medium enterprises (MSMEs) in Indonesia, contributing 60.51% to GDP and representing 99.9% of all business establishments nationally ([Dading Gunadi et al. 2021](#); [Meilariza, Mirah Delima, and Zahara 2024](#); [Aryanto and Farida 2022](#); [Zunairoh and Wijaya 2024](#)). Despite this significance, many MSMEs experience difficulty accessing formal banking services, particularly bank loans. Key barriers include financial illiteracy ([Lusardi and Mitchell 2014](#)), limited legal knowledge ([Horák, Lacko, and Klocek 2021](#)), inconsistent service quality ([Parasuraman, Zeithaml, and Berry 1988](#)), and constrained access to formal credit ([Beck and Demirgüç-Kunt 2006](#); [Ismanto, Atmaji, and Suhari 2024](#)).

These barriers, however, are not experienced uniformly across the banking sector: Indonesia's dual banking structure - state-owned and private institutions operating under different mandates - creates systematically different conditions under which MSMEs encounter financial literacy, legal, service-quality, and credit-access barriers. Indonesia's banking sector comprises State-Owned Banks (BUMN) - Bank Mandiri, BNI, and BRI - and Private Banks such as BCA, OCBC NISP, and CIMB Niaga. Beyond simple ownership labels, the two groups operate under materially different institutional mandates: BUMN banks pursue government-directed financial-inclusion and developmental objectives alongside commercial goals, a dual mandate

that international evidence links to more standardized, policy-driven service delivery and, at times, bureaucratic inefficiency ([La Porta, Lopez-de-Silanes, and Shleifer 2002](#); [Fauziah, Hartoyo, and Yuliati 2015](#)). Private banks, lacking this inherited policy mandate, compete primarily on service differentiation and operational efficiency to retain customers ([Supriyanto, Wiyono, and Burhanuddin 2021](#)). This distinction matters directly for the present research: if state ownership and private ownership generate systematically different institutional relationships with customers, MSME satisfaction should reasonably be expected to be shaped by different levers in each segment - precisely the differential effect this study is designed to test (H_5). Prior studies, moreover, have examined these determinants largely in isolation and within a single bank type. [Kusumawardani et al. \(2021\)](#) documented that credit-service quality shapes customer satisfaction and loyalty at a single state-owned bank (Bank Mandiri), without a private-bank comparison. [Sepria Baresi \(2025\)](#) linked credit accessibility to MSME business performance in Indonesia but did not measure customer satisfaction or test bank ownership as a differentiating factor. [Phan Thi Hang and Kim Quoc Trung \(2024\)](#) confirmed the SERVQUAL-satisfaction-loyalty chain among Vietnamese SME borrowers - a single-country context that leaves the state-owned/private distinction untested. [Tubastuvi and Rusydiana \(2024\)](#) prioritized Islamic financial-literacy interventions for Indonesian MSMEs without linking literacy to satisfaction outcomes or to bank ownership type. No identified study has jointly tested financial literacy, legal awareness, service quality, and credit accessibility as simultaneous predictors of MSME satisfaction while explicitly comparing state-owned and private bank customers within Indonesia - the gap this study addresses.

This study addresses three questions: (1) What role do financial literacy, legal awareness, banking service quality, and credit accessibility play in MSME customer satisfaction? (2) Which

variable has the greatest impact? (3) Do effects differ between state-owned and private banks in Jakarta? Results aim to guide banks, OJK, and regulators in improving MSME banking experiences.

Integrating TPB, SET, and ECT: A Sequential Process Model

Although financial literacy, legal awareness, banking service quality, and credit accessibility draw on distinct theoretical traditions, they are conceptualized here as sequential inputs into a single expectation-confirmation process rather than as three unrelated explanations assigned one-to-one to the four predictors.

[Ajzen's \(1991\)](#) Theory of Planned Behavior holds that perceived behavioral control (PBC) - confidence in one's capacity to execute a course of action - is built from relevant knowledge and skill; applied to MSME owners, financial literacy raises PBC over financial decisions before the loan relationship begins, shaping the expectations they bring into it. [Bhattacharjee's \(2001\)](#) Expectation Confirmation Theory holds that post-usage satisfaction results from the confirmation or disconfirmation of these pre-formed expectations against perceived performance - operationalized here through banking service quality and credit accessibility. Legal awareness operates as a boundary condition: [Cropanzano and Mitchell's \(2005\)](#) Social Exchange Theory holds that parties in an ongoing exchange judge fairness and reciprocity, so MSME borrowers who understand their contractual rights are better positioned to interpret ambiguous loan terms as a fair exchange rather than exploitation, increasing the likelihood that a given level of service performance is confirmed rather than disconfirmed. In this sequence, TPB explains the formation of pre-usage expectations (via financial literacy), SET explains the fairness lens through which performance is evaluated (via legal awareness), and ECT explains the

resulting satisfaction judgment - the model that H_1 - H_4 jointly test and that H_5 extends.

These mechanisms are expected to operate with different relative strength across ownership types because state-owned and private banks confer different institutional expectations on customers. Following [La Porta, Lopez-de-Silanes, and Shleifer's \(2002\)](#) analysis of government bank ownership, BUMN banks in developing economies pursue state-directed development and financial-inclusion mandates in addition to commercial objectives, which anchors customer trust in institutional legitimacy and reliable credit access rather than in day-to-day service delivery. Private banks, lacking this inherited legitimacy, must earn and retain trust primarily through consistent, competitive service delivery ([Supriyanto, Wiyono, and Burhanuddin 2021](#)). Consequently, the PBC-building lever (financial literacy) and the confirmation-anchoring lever (credit accessibility) are theorized to dominate satisfaction formation in state-owned banks, while service-quality performance is theorized to dominate in private banks - the differential pattern formally tested as H_5 (Financial Literacy [TPB/PBC] → Legal Awareness [SET/Fairness Lens] → Service Quality & Credit Accessibility [Performance Inputs] → Customer Satisfaction [ECT/Confirmation]).

Financial Literacy and Customer Satisfaction

[Ajzen's \(1991\)](#) Theory of Planned Behavior (TPB) posits that behavior is explained by attitude, subjective norms, and perceived behavioral control (PBC). Financial education enhances MSME owners' PBC over financial decisions, enabling better product comparison, loan negotiation, and realistic service expectations. Per Expectation Confirmation Theory, financially educated owners are better positioned to evaluate bank suitability, leading to higher satisfaction when expectations are met ([Hussain, Salia, and Karim 2018](#); [Kurniasari, Abd Hamid, and Lestari 2025](#); [Lusardi and Mitchell 2014](#); [Rekha, Sriram, and Hungund](#)

[2024; Frimpong, Agyapong, and Agyapong 2022\).](#)

H₁: Financial literacy has a significant positive influence on MSMEs' customer satisfaction in Jakarta banks.

Legal Awareness and Customer Satisfaction

Social Exchange Theory explains engagement with organizations based on perceived fairness, mutual benefit, and dependability ([Horák, Lacko, and Kloczek 2021](#)). Customers who understand their legal rights view banking relationships as more equitable. Legal awareness-knowledge of loan terms, borrower rights, and dispute avenues-is expected to enhance satisfaction by increasing confidence in fair treatment, particularly for MSMEs typically lacking legal representation in banking negotiations ([Haspada 2025](#)).

H₂: Legal awareness has a significant positive influence on MSMEs' customer satisfaction in Jakarta banks.

Banking Service Quality and Customer Satisfaction

[Parasuraman, Zeithaml, and Berry \(1988\)](#) developed the SERVQUAL framework measuring five dimensions: Tangibles, Reliability, Responsiveness, Assurance, and Empathy. [Ifedi et al. \(2024\)](#) demonstrated that improved service quality enhances banking customer satisfaction and retention. [Torres Frago and Luna Espinoza \(2017\)](#), using the SERVPERF model, found assurance and reliability to be the most important sub-dimensions for bank customers. Consistent with this, [Osman et al. \(2024\)](#) found that service quality and customer satisfaction jointly predict customer-retention intention among Indonesian customers.

H₃: Banking service quality has a significant positive influence on MSMEs' customer satisfaction in Jakarta banks.

Credit Accessibility and Customer Satisfaction

Credit accessibility — the ease with which MSMEs can obtain and utilize bank credit — is more accurately conceptualized in the financial-inclusion literature as an institutional-support and lending-policy construct ([Beck and Demirgüç-Kunt 2006; Nguyen 2021; Widyastuti, Ferdinand, and Hermanto 2023; Tandilino et al. 2025](#)) rather than as a direct SERVQUAL service-quality sub-dimension. It nonetheless connects to the present framework through [Ajzen's \(1991\)](#) perceived behavioral control: MSME owners who perceive the lending process as navigable and within their control are more likely to view themselves as capable of engaging productively with the bank, which increases receptiveness to the bank's broader service offering. [Sepria Baresi \(2025\)](#) found a significant relationship between credit accessibility and MSME business performance in Indonesia, while [Mataveli, Ayala, and Gil \(2021\)](#) identified institutional willingness to support borrowers — encompassing collateral requirements, documentation burden, and approval speed — as a strong, independent predictor of client satisfaction, distinct from front-line service interactions.

H₄: Credit accessibility has a significant positive influence on MSMEs' customer satisfaction in Jakarta banks.

Comparative Effects Across Bank Types

The four factors may affect satisfaction differently across bank types due to differing mandates and customer expectations. State-owned banks emphasize financial inclusion while private banks prioritize service quality and responsiveness ([Shetty et al. 2022; Supriyanto, Wiyono, and Burhanuddin 2021](#)). Empirical comparison of these differential effects in the Indonesian MSME context remains limited.

H₅: The effects of financial literacy, legal awareness, banking service quality, and credit accessibility on MSME customer satisfaction differ significantly in magnitude between private and state-owned banks in Jakarta, reflecting the

differing institutional trust bases and service expectations associated with each ownership type.

METHOD

This study employs a quantitative, comparative, cross-sectional design. Data were collected from active-loan accounts during 2023–2025 from three private bank branches in Jakarta—PT Bank CIMB Niaga Tbk., PT Bank Central Asia Tbk. (BCA), and PT Bank OCBC NISP Tbk.—and three state-owned bank branches—PT Bank Negara Indonesia (Persero) Tbk., PT Bank Rakyat Indonesia (Persero) Tbk., and PT Bank Mandiri (Persero) Tbk. These six banks were selected based on asset size and MSME lending activity, providing an even 3-versus-3 comparison.

Participants were MSME business owners or managers in Jakarta with active bank loans up to IDR 15 billion, as defined by Law No. 20 of 2008. Inclusion required full questionnaire completion and Jakarta residency; exclusion criteria included three or more prior loan rejections, bank employment, and non-Jakarta residency. Power analysis (power = 0.9, effect size = 0.40, alpha = 0.05, two-tailed) determined a minimum of 108 participants per group. A total of 220 participants were recruited—110 per bank category—satisfying this requirement.

Financial literacy was measured through 6 items reflecting TPB's PBC construct. Legal awareness was measured through 6 items representing social exchange legal aspects. Banking service quality was measured through 10 items covering all five SERVQUAL dimensions. Credit accessibility was measured through 6 items from TPB and SERVPERF. Customer satisfaction was measured through 7 items consistent with Expectation Confirmation Theory. All items were adapted from previously validated instruments. A pilot study of 30 MSME respondents confirmed validity (Pearson $r \geq 0.361$, $n = 30$) and reliability before main data collection.

Analysis was conducted in IBM SPSS Statistics Version 25 through six steps: (1) descriptive statistics for both groups; (2) KMO, Bartlett's Test, and Cronbach's Alpha for data quality; (3) Principal Component Analysis (PCA) per construct by bank group; (4) partial t-tests for predictor significance; (5) multicollinearity diagnosis per bank group using both the pairwise Pearson correlation matrix among the four predictors (flagging any $|r| \geq 0.90$) and Tolerance/Variance Inflation Factor (VIF) statistics (flagging $VIF > 10$ or $Tolerance < 0.10$); (6) multiple linear regression of customer satisfaction on the four predictors per bank group, whereby any predictor flagged as collinear was removed and the model re-estimated so that each retained predictor was assessed while holding the others constant; and (7) comparison of the standardized coefficients across the two bank-group models to assess differential effects by bank type.

RESULTS

Table 1 presents the demographic distribution of the 220 participants across bank groups. The private bank sample was dominated by BCA (51.8%), followed by OCBC NISP (39.1%) and CIMB Niaga (9.1%), with equal gender distribution. The state-owned bank sample comprised Bank Mandiri (33.6%), BRI (33.6%), and BNI (32.7%), was predominantly female (66.4%), generally older (67.3% aged 41–50 years), and exclusively entrepreneurs (100%).

The Kaiser-Meyer-Olkin (KMO) index of .722 indicated adequate data for factor analysis. Bartlett's Test of Sphericity was statistically significant (chi-square = 822.113, $df = 10$, $p < .001$), confirming sufficient item intercorrelation. Cronbach's Alpha for the composite scale was .878, with all construct reliabilities exceeding .7 in both bank samples. All item-to-total correlations exceeded $r \geq .132$ ($n = 220$, $\alpha = .05$). Normality was addressed via the Central Limit Theorem. The sampling-adequacy statistics are summarized in Table 2.

PCA (Principal Component Analysis) produced a single dominant factor for all constructs across both groups, with loadings well above 0.60. Results were strongest in the state-owned bank group: credit accessibility explained 93.63% of variance (five of six items loading at .995); legal awareness explained 82.39%; and customer satisfaction explained 100.00% (all seven items at 1.000). The uniform response pattern among state-owned bank customers—66.4% 'agree' and 33.6% 'strongly agree' across all satisfaction items—foreshadowed the large regression coefficients observed. The component structure for every construct and bank group is detailed in Table 3.

To determine whether each factor influences satisfaction in the presence of the others, customer satisfaction was regressed on all four predictors simultaneously within each bank group. Before interpretation, multicollinearity was assessed per group using the pairwise Pearson correlation matrix among the predictors (Tables 4 and 5) together with Tolerance and Variance Inflation Factor (VIF) statistics (Table 6), applying the thresholds $|r| \geq 0.90$, $VIF > 10$, and $Tolerance < 0.10$ (Field 2018; Hair et al. 2019).

The two matrices differed sharply. In private banks the strongest inter-predictor correlation was service quality–credit accessibility ($r = 0.792$) (Table 4) and no pair reached the $|r| = 0.90$ threshold. In state-owned banks two pairs exceeded it (Table 5) —

financial literacy–credit accessibility ($r = 0.993$) and legal awareness–service quality ($r = 0.922$) — signalling severe redundancy among predictors. The Tolerance and VIF statistics presented in Table 6 confirmed this pattern.

Guided by these diagnostics, the regression strategy differed by group. For private banks, where all VIF were below 10 (range 1.53–3.41), the full four-predictor model was retained. For state-owned banks, the perfect collinearity (Tolerance = 0.000; VIF undefined) of financial literacy and legal awareness required their removal; following the recommended remediation of dropping one predictor from each collinear pair (financial literacy from its $r = 0.993$ pair with credit accessibility, and legal awareness from its $r = 0.922$ pair with service quality), customer satisfaction was re-estimated on the retained predictors, service quality and credit accessibility. Even after this remediation the state-owned model returned $R^2 = 1.000$ with implausibly large t-statistics, because the state-owned satisfaction composite took only two distinct values across all 110 respondents (Cronbach's $\alpha = 1.000$; PCA = 100% variance). This degeneracy of the dependent variable — not merely collinearity among predictors — is the deeper problem in the state-owned group: no choice of retained predictors can recover conventional multivariate inference from a near-constant outcome, so those estimates are interpreted descriptively. Results are reported in Table 7.

Table 1. Respondent Profile by Bank Group

Variable	Private Bank	n (%)	State-Owned Bank	n (%)
Gender	Male	55 (50.0%)	Male	37 (33.6%)
	Female	55 (50.0%)	Female	73 (66.4%)
Age (years)	20–30	11 (10.0%)	20–30	0 (0.0%)
	31–40	65 (59.1%)	31–40	36 (32.7%)
	41–50	34 (30.9%)	41–50	74 (67.3%)
Employment	Private employee	54 (49.1%)	—	—
	Entrepreneur	56 (50.9%)	Entrepreneur	110 (100%)

Table 2. KMO and Bartlett's Test of Sampling Adequacy

Measure	Value
Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy	0.722
Bartlett's Test of Sphericity — Approx. Chi-Square	822.113
Bartlett's Test of Sphericity — df	10
Bartlett's Test of Sphericity — Sig.	0.000

Note: KMO = 0.722 exceeds the 0.70 "good" threshold, and Bartlett's test is significant ($p < .001$), jointly confirming the dataset's suitability for factor analysis (Kaiser 1974; Hair et al. 2019).

In the private-bank model, service quality ($\beta = 0.694$, $p < 0.001$) and credit accessibility ($\beta = 0.270$, $p < 0.001$) were significant with all predictors held constant, together explaining 86.0% of the variance in satisfaction (adjusted $R^2 = 0.854$; $F(4,105) = 160.9$, $p < 0.001$); financial literacy ($\beta = 0.063$, $p = 0.167$) and legal awareness ($\beta = -0.041$, $p = 0.420$) were not. This contrasts with the bivariate correlations in Table 4, where all four predictors correlated positively with satisfaction, and shows

that financial literacy and legal awareness share their apparent influence with service quality and credit accessibility rather than contributing independently. In the state-owned model, credit accessibility ($\beta = 0.936$) dwarfed service quality ($\beta = 0.112$), though the degeneracy noted above limits this to a descriptive comparison. Table 8 consolidates the evidence and decision for each hypothesis, aligning the bivariate associations with the multivariate results for H_1 through H_5 .

Table 3. Principal Component Analysis Summary by Construct and Bank Group

Bank Group	Construct	Eigenvalue (Comp. 1)	% Variance Explained	Item Loading Range	Cronbach's α
Private Bank	Financial Literacy	3.218*	53.64%	.283–.916	.793
Private Bank	Legal Awareness	5.129	85.48%	.810–.961	.962
Private Bank	Service Quality	5.581	55.81%	.167–.917	.855
Private Bank	Credit Accessibility	4.360	72.68%	.794–.937	.920
Private Bank	Customer Satisfaction	5.121	73.15%	.597–.944	.934
State-Owned Bank	Financial Literacy	4.505	75.09%	-.936–.938	.799
State-Owned Bank	Legal Awareness	4.944	82.39%	.868–.982	.914
State-Owned Bank	Service Quality	8.621	86.21%	.608–.993	.933
State-Owned Bank	Credit Accessibility	5.618	93.63%	.814–.995	.924
State-Owned Bank	Customer Satisfaction	7.000	100.00%	1.000 (all items)	1.000

**Computed as % variance $\times$ number of items $\div 100$ (6 items), since the raw eigenvalue was not separately reported for this cell in the source output.*

Table 4. Pairwise Correlations among Study Variables — Private Bank (n = 110)

	FL	LA	SQ	CA	CS
FL	1.000	.518	.426	.551	.486
LA	.518	1.000	.607	.663	.591
SQ	.426	.607	1.000	.792	.909
CA	.551	.663	.792	1.000	.827
CS	.486	.591	.909	.827	1.000

Before interpreting the pattern of results, it is necessary to address the unusually high standardized coefficients and R^2 values observed in the state-owned bank group (e.g., $\beta = 0.995$, $R^2 = 0.991$ for credit accessibility; $R^2 = 1.000$ for the customer-satisfaction PCA solution itself). As the Results section documents, these values are a direct statistical consequence of extreme response homogeneity among the 110 state-owned bank respondents — most items were endorsed identically across the sample — rather than evidence of a uniquely powerful causal relationship. This homogeneity is consistent with the demographic concentration of the state-owned bank sample (67.3% aged 41–50, 100% entrepreneurs) and should be read as a boundary condition on the strength, though not the direction or significance, of the state-owned bank findings.

Credit Accessibility

Credit accessibility was the most robust driver of MSME satisfaction and the only predictor that remained a strong, significant unique contributor in the multivariate model. In private banks it was significant with all predictors held constant ($\beta = 0.270$, $p < 0.001$), and in state-owned banks it dominated the remediated model ($\beta = 0.936$). This supports the TPB concept of Perceived Behavioral Control: when

MSMEs perceive the loan process as easy to navigate, overall bank evaluation improves. The finding aligns with [Kurniasari, Abd Hamid, and Lestari \(2025\)](#) on the mediating role of access to capital, and extends it by showing that credit accessibility retains explanatory power even after controlling for service quality, legal awareness, and financial literacy. Banks should therefore prioritise streamlining loan-application processes.

Banking Service Quality

Banking service quality was the strongest unique predictor of satisfaction for private-bank customers in the multivariate model ($\beta = 0.694$, $p < 0.001$). This is consistent with [Parasuraman, Zeithaml, and Berry \(1988\)](#) and [Phan Thi Hang and Kim Quoc Trung \(2024\)](#). Interpreted through Social Exchange Theory's reciprocity logic ([Cropanzano and Mitchell 2005](#)), private banks — lacking BUMN's inherited institutional legitimacy — must earn continued patronage through consistently reciprocated service quality, making it the primary lever through which private-bank customers' expectations are confirmed ([Bhattacharjee 2001](#)). In state-owned banks, service quality was highly collinear with legal awareness ($r = 0.922$) and carried a negligible unique coefficient ($\beta = 0.112$), so it is not a distinguishing driver in that segment.

Table 5. Pairwise Correlations among Study Variables — State-Owned Bank (n = 110)

	FL	LA	SQ	CA	CS
FL	1.000	.743	.426	.993	.977
LA	.743	1.000	.922	.817	.868
SQ	.426	.922	1.000	.530	.608
CA	.993	.817	.530	1.000	.995
CS	.977	.868	.608	.995	1.000

Table 6. Collinearity Diagnostics (Tolerance and VIF) by Bank Group

Bank Group	Predictor	Tolerance	VIF	Decision
Private	Financial Literacy	.652	1.533	Retained
Private	Legal Awareness	.508	1.968	Retained
Private	Service Quality	.359	2.787	Retained
Private	Credit Accessibility	.293	3.411	Retained
State-Owned	Financial Literacy	.000	undefined	Removed (r=.993 with CA)
State-Owned	Legal Awareness	.000	undefined	Removed (r=.922 with SQ)
State-Owned	Service Quality	.719	1.390	Retained
State-Owned	Credit Accessibility	.719	1.390	Retained

Legal Awareness

At the bivariate level, legal awareness correlated positively with satisfaction in both groups (Private $r = 0.591$; State-Owned $r = 0.868$). However, once the other predictors were held constant, it was not a significant unique predictor in private banks ($\beta = -0.041$, $p = 0.420$) and was too collinear with service quality ($r = 0.922$) to be separately estimated in state-owned banks. Its apparent effect therefore appears to operate through shared variance with service quality and credit accessibility rather than as an independent channel — theoretically consistent with Social Exchange Theory ([Cropanzano and Mitchell 2005](#)), in which perceived fairness is bound up with the wider service and access experience rather than standing apart from it.

Financial Literacy

Financial literacy showed the same pattern: a strong bivariate association (State-Owned $r = 0.977$; Private $r = 0.486$) that did not survive multivariate adjustment. Its unique coefficient in private banks was small and non-significant ($\beta = 0.063$, $p = 0.167$), and in state-owned banks it was almost perfectly collinear with credit accessibility ($r = 0.993$), so its effect could not be separated from ease of credit access. Consistent with TPB's perceived behavioral control ([Ajzen 1991](#)), financially literate owners may enter the relationship with better-calibrated expectations, but the data indicate this operates through, rather than independently of, their perception of credit accessibility — a coherent theoretical overlap rather than two distinct levers.

Table 7. Multiple Regression Results (DV: Customer Satisfaction; collinear predictors removed for State-Owned Bank)

Bank Group	Predictor	Std. β	t	Sig. (p)
Private	Financial Literacy	.063	1.39	.167
Private	Legal Awareness	-.041	-0.81	.420
Private	Service Quality	.694	11.37	<.001
Private	Credit Accessibility	.270	4.00	<.001
State-Owned	Financial Literacy	removed	—	collinear
State-Owned	Legal Awareness	removed	—	collinear
State-Owned	Service Quality	.112	†	†
State-Owned	Credit Accessibility	.936	†	†

Note: Std. β = standardized coefficient from the multiple regression of customer satisfaction on all predictors per group. Private-bank model: adjusted $R^2 = 0.854$, $F(4,105) = 160.9$, $p < 0.001$. State-owned model retains only service quality and credit accessibility after removing the collinear predictors; † t and significance are not interpretable owing to the degenerate dependent variable ($R^2 = 1.000$).

Table 8. Hypothesis Testing Summary

Hyp.	Statement	Key Evidence	Outcome
H ₁	Financial literacy → CS (+)	Bivariate r : Private .49, State-owned .98; but multiple regression Private β = .063 (p = .167), and collinear (removed) in State-owned	Supported bivariately; not an independent predictor
H ₂	Legal awareness → CS (+)	Bivariate r : Private .59, State-owned .87; but multiple regression Private β = -.041 (p = .420), and collinear (removed) in State-owned	Supported bivariately; not an independent predictor
H ₃	Service quality → CS (+)	Private β = .694 (p < .001); State-owned retained β = .112	Supported
H ₄	Credit accessibility → CS (+)	Private β = .270 (p < .001); State-owned β = .936	Supported
H ₅	Effects differ by bank type	Dominant unique driver: service quality in private (β = .694) vs credit accessibility in state-owned (β = .936)	Supported

Comparative Profile Across Bank Types

The results support H₅: the dominant unique driver differs by bank type. In private banks, where predictors were not collinear and the full model was valid, service quality (β = 0.694) and, secondarily, credit accessibility (β = 0.270) were the significant drivers. In state-owned banks, credit accessibility dominated (β = 0.936), while financial literacy and legal awareness were statistically inseparable from it and from service quality (r = 0.993 and r = 0.922). This parallels [Shetty et al. \(2022\)](#) on the salience of relational and institutional factors for public-sector-bank customers; Indonesia's state-owned banks carry historical legitimacy rooted in national development which, together with near-uniform satisfaction responses, appears to compress the distinct predictors into a single underlying evaluation.

Taken together, the study's contribution is twofold. Substantively, using a properly specified multiple-regression model in each group, it shows that the dominant driver of MSME satisfaction differs by ownership type — service quality in private banks, credit accessibility in state-owned banks — while financial literacy and legal awareness, though positively correlated with satisfaction, do not exert independent effects once service quality

and credit accessibility are controlled. Methodologically, the contrast between the bivariate and multivariate results is itself informative: it demonstrates why, in this domain, simultaneous modelling with explicit collinearity diagnostics is necessary to avoid overstating the number of independent satisfaction drivers.

CONCLUSION

This study examined four factors as drivers of MSME customer satisfaction with Jakarta banking services. At the bivariate level all four were positively and significantly associated with satisfaction in both bank types; however, once the predictors were modelled simultaneously and collinearity was diagnosed, a sharper picture emerged. In private banks — where the predictors were not collinear — banking service quality (β = 0.694) and credit accessibility (β = 0.270) were the significant unique drivers, whereas financial literacy and legal awareness were not. In state-owned banks, credit accessibility dominated (β = 0.936), while financial literacy and legal awareness were too collinear (r = 0.993 and 0.922) to be separately identified, and near-uniform satisfaction responses confined the model to a descriptive role. Hypotheses H₃, H₄, and H₅ were supported; H₁ and H₂ held only as

bivariate associations, not as independent effects in the multivariate model. The central contribution is the ownership-differentiated pattern of dominant drivers — service quality for private banks, credit accessibility for state-owned banks — established with explicit collinearity diagnostics that guard against overstating the number of independent drivers.

In practical terms, credit accessibility is the common thread: it was a significant unique driver for private banks and the dominant one for state-owned banks, confirming ease of borrowing as a central determinant of MSME banking perceptions. Service quality was the primary lever for private banks specifically. Financial literacy and legal awareness, although positively correlated with satisfaction, did not add independent explanatory power once service quality and credit accessibility were accounted for, and should be viewed as reinforcing conditions rather than standalone drivers.

Managerially, banks should improve credit access by reducing documentation requirements, expediting approvals, and communicating loan terms clearly. State-owned banks should rewrite loan documents and develop plain-language summaries. Private banks should invest in branch-level service quality consistency. Both bank types should maintain transparency in contractual

agreements. State-owned banks should collaborate with OJK and MSME associations to provide tailored financial and legal literacy programs, while OJK should enforce its SNLKI 2021–2025 mandate for sector-wide MSME literacy campaigns.

Limitations include a cross-sectional design precluding causal inference, a Jakarta-only sample limiting geographic generalizability, potential ceiling effects from the homogeneous state-owned bank respondent group ($R^2 = 0.991$ for credit accessibility), and reliance on self-reported data. A further limitation concerns the statistical structure of the data: in the state-owned group the satisfaction composite took only two distinct values, producing near-perfect collinearity (financial literacy–credit accessibility $r = 0.993$; legal awareness–service quality $r = 0.922$) and a degenerate $R^2 = 1.000$, so the state-owned coefficients are descriptive rather than inferential; future work should use response scales and sampling that preserve within-group variance, enabling each predictor's independent contribution to be estimated in a fully specified multivariate model. Future research should conduct longitudinal studies and mediation analyses, expand geographically, and incorporate additional predictors such as institutional trust, digital banking adoption, and objective MSME performance metrics.

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